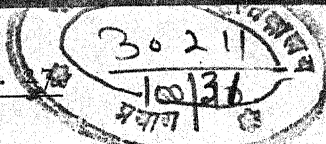


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THE EVIDENCE FOR THE - SUPERNATURAL

A CRITICAL STUDY MADE WITH
"UNCOMMON SENSE"

BY

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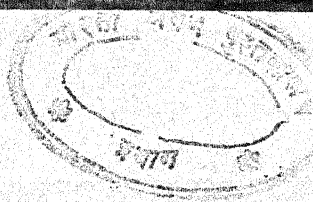
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PREFACE TO THIS EDITION

THIS volume is a re-issue of part of a book published in 1911. It was written in the course of an inquiry covering about four years, and made solely with the object of satisfying myself whether there is scientific evidence for any supernatural (or supernormal) hypothesis. And since then I have not neglected to read the publications of the Society for Psychical Research: but I have not found any reason for altering my conclusions.

Perhaps what has impressed me most in studying psychical research is the prevalence of the will-to-believe among psychical researchers. With very few exceptions, their object is clearly not to get at the truth by *scientific methods* of inquiry, but to establish some hypothesis. Thus we have the testimony of Frederic Myers that "The Society for Psychical Research was founded, with the establishment of thought-transference—already rising within measurable distance of proof—as its primary aim. . . ." (*Proceedings S.P.R.*, Vol. V., p. 365). However, in this year of the Jubilee of the S.P.R. I am interested to note that belief in telepathy has made some psychical researchers recognise the impossibility of getting proof of survival of "discarnate intelligence"; and that Sir Oliver Lodge himself admits there may be loopholes for scepticism even in the best test case which he can *imagine*; and that to make such a test possible "rather an exceptional concatenation of circumstances" would be required. (*Proceedings S.P.R.*, Vol. XL., p. 125).

Accordingly, evidence for telepathy is to-day the chief contribution of psychical research to belief in the supernormal. But though there is a great deal of plausible evidence, there is none that is scientifically convincing. And as belief in thought-transference was entertained by mankind thousands of years ago, it is not surprising that it still exists: but surely it is significant that just as increase of knowledge has destroyed belief in witchcraft, so it is now doing the same for

telepathy. As Sir James Frazer says in *The Golden Bough*, "Belief in the sympathetic influence exerted on each other by persons or things at a distance is of the essence of magic. Whatever doubts science may entertain as to the possibility of action at a distance, magic has none: faith in telepathy is one of its first principles. A modern advocate of the influence of mind upon mind at a distance would have no difficulty in convincing a savage: the savage believed in it long ago, and, what is more, he acted on his belief with a logical consistency such as his civilised brother in the faith has not yet, so far as I am aware, exhibited in his conduct." (Abridged Edition, 1932, p. 22.)

February, 1932.

PREFACE TO FIRST EDITION

I FEEL that the sub-title of this book will lay me open to a well-merited charge of egoism—if of nothing worse—unless I can justify my use of the expression “uncommon sense.” Therefore a foreword explaining the circumstances under which the book came to be written seems necessary.

In the autumn of 1907 there appeared in the *Westminster Gazette* a series of articles under the title of “Occultism and Common Sense,” in which the writer, Mr. Beckles Willson, undertook, without much pretence to any special qualification for the task, a review of psychical research up to date in order to settle the question whether the mid-Victorian attitude of scepticism towards Spiritualism entertained by such great men as Faraday, Tyndall, Huxley, and Spencer, could still be maintained, and he came to the conclusion that in the face of recent evidence such an attitude was unjustifiable. Having read these articles just before sailing for New Zealand, I had much time on the voyage to think over the matter, and I very much doubted whether the great men mentioned would have found any reason in the recent evidence quoted by Mr. Willson for changing their opinion. However, I decided to investigate the matter myself, and accordingly, in the ensuing year that I spent in New Zealand, I filled up spare time by reading with a view to making up my mind on the subject. Then, in the attempt to estimate the value of the evidence for Spiritualism, I was inevitably led to a consideration of all that is popularly included in the word “supernatural.”

In the following pages I do not profess to have written much that can be described, even vaguely, as original, seeing that it is largely a reproduction of ideas much better expressed by philosophers like Herbert Spencer and G. H. Lewes, by experts in natural science like Tyndall and Huxley, by a student of psychical phenomena like Mr. Frank Podmore. However, their writings are

of considerable length, and not much read by the man-in-the-street; therefore I hope that, by combining in one short book the results at which I have arrived with their help, I may succeed in interesting those who have not much time for reading, and yet are anxious to form for themselves a sound opinion as to the truth in these important matters. In fact, such a book as this seems to me particularly needed at the present time, when writers like Thomson Jay Hudson turn out popular psychic treatises such as "The Law of Psychic Phenomena," "A Scientific Demonstration of the Future Life," and "The Divine Pedigree of Man," in which it is assumed that telepathy is a force in Nature as well established as the Force of Gravity. At the same time, I realise that I am in danger of "falling between two stools," namely, on the one hand, of giving too philosophical an expression to what is meant to be a popular book, and, on the other hand, of being too superficial for more scientific readers in my treatment of questions so complex that their solution becomes in one sense more difficult the more knowledge grows. This difficulty, however, can hardly be avoided, and arises from the same cause as that which has induced me to call this inquiry a critical study made with "uncommon sense." For common-sense is not by itself an adequate protection against the fallacies which abound in complex philosophical questions; and that this is so is clearly proved by the titles given to their books by those writers on Spiritualism who have no special qualification for the task, like the author of "Occultism and Common-Sense," whom even Sir Oliver Lodge felt justified in calling "an irresponsible journalist." A most excellent illustration of this tendency is given by Podmore in the chapter on table-turning in his "Modern Spiritualism" as follows: "The point of view of the average muddle-headed man is amusingly illustrated in an anonymous pamphlet published in the autumn of this year (1853), entitled 'Table-turning and Table-talking considered in connection with the dictates of Reason and Common-Sense.' The writer finds himself constrained to record his dissent from Faraday's explanation. 'It is not,' he contends, 'with learned theories we wish to have to do . . . we would simply bring common-sense to bear on these strange matters.' He then proceeds to point out—to Faraday—that 'there is a subtle matter which pervades all Nature,' known in some of its manifestations

as electricity. It is true we know very little about it; but for all that, or perhaps because of that, it seems to the writer not unreasonable to suggest that electricity makes the table move. A more apt illustration of the arrogance of sheer ignorance on which Faraday had animadverted, could hardly be found." (Vol. II., p. 10.) And Podmore has written in the same book another passage on the uselessness of untrained common-sense, which is worth quoting: "The unity of substance and the omnipotence of electricity—'salvation by electricity,' as James happily terms it—were the two keys which for the early Spiritualist unlocked the doors of all knowledge in heaven or on earth. Of the nature of God, or other transcendental mysteries, the spirits have nothing to say. The world they present to our view is a strictly material world, developing by processes of material evolution towards an unknown end. There is no mystery about their teaching. Spirit is only attenuated matter, the other world a counterpart of this; the living universe an endless series of beings like ourselves. Their view in short represents the product of common-sense, the common-sense of the ordinary uninstructed man, acting upon the facts, or rather his interpretation of the facts, presented to him. Given his interpretation as correct, the inferences which he drew, the cosmological scheme which he constructed on the lines of his own parochial experience, follow inevitably. There is rarely any hint of deeper insight. The problems of Space and Time, of Knowing and Being of Evil and Good, of Will and Law, are hardly even recognised. Common-sense is not competent for these questions; and in so far as the Spiritualist scheme fails to take account of them, it falls short of being a Theology, or even an adequate Cosmology." (Vol. I., p. 302.)

A few words also are necessary in defence of the main title of this book, as I foresee that "The Evidence for the Supernatural" is an expression which will lend itself readily to adverse criticism. For I have noticed a tendency in recent years, both among spiritualists and ecclesiastics, to find satisfaction in the saying that the supernatural (or supernormal) of one generation is the natural (or normal) of the next. Thus Professor Barrett, F.R.S., in a lecture I heard him give at Letchworth in August, 1910, said—after stating his belief that a residue of psychic phenomena is most readily explicable by the hypothesis of discarnate spirits—that God alone is

supernatural, and that all other explanations of phenomena are supernatural rather than supernatural.

To a certain extent this of course is true. To Australian aborigines or African forest-dwellers the workings of wireless telegraphy, of photography, and of almost any branch of applied science, must appear on their first introduction inexplicable by any natural or known cause, and therefore supernormal (or supernatural). But if an uncivilised man, in trying to explain the phenomena of photography to his friends in the light of his own knowledge, said that it was due to a spirit which lived in a box possessed by the white men, and that the white men had merely to place this box in the neighbourhood of any object for the spirit of that object to fly to the spirit in the box, where it left an imprint on a piece of glass; though this description of the facts might be said to contain an element of truth, yet the explanation of the facts would not appear satisfactory to succeeding and more enlightened generations. Also, such an explanation of photography would be based on errors of observation; for it leaves out of account the position of the camera in relation to the sun, the chemicals on the photographic plate, etc., and the fact that a "cap" was removed from the lens in the process of taking a photograph. Thus a great distinction must be made between the truth contained in a set of recorded facts and the explanation of such so-called facts. Spiritualistic and ecclesiastical authorities are apt to confuse the issue when they quote the saying "the supernatural of one generation is the natural of the next" in support of their own position. For what they are fighting for is not so much the truth of the so-called facts themselves as their explanations of these facts. And whereas belief in the former may be strengthened with the additions to knowledge which every generation of scientific work is sure to make, belief in the latter is more often than not weakened. And if their explanations run counter to the accumulated experience of mankind, known as natural laws, belief will certainly be weakened—as for instance belief in that explanation of the floating of Elisha's axe which requires a suspension of the Law of Gravity, or belief in those explanations of the "Temptation" that imply a contravention of the Laws of the Permanence of Matter and the Conservation of Energy. In this sense the word

"supernatural" has a very definite meaning, and connotes invoking the aid of hypothetical forces to explain phenomena which are not apparently in harmony with so-called natural laws.

Huxley was very clear in his attitude towards the supernatural, and should command universal respect, as, while using words on which the above-quoted saying might be based, he did not mince matters about the necessity of sifting evidence and rejecting whatever might with probability be attributed to the mythopœic faculty in man. Thus he wrote: "In singular contrast with natural knowledge, again, the acquaintance of mankind with the supernatural appears the more extensive and the more exact, and the influence of supernatural doctrines upon conduct the greater, the further back we go in time, and the lower the stage of civilisation submitted to investigation. Historically there would seem to be an inverse ratio between supernatural and natural knowledge. As the latter has widened, gained in precision and trustworthiness, so has the former shrunk, grown vague and questionable; as the one has more and more filled the sphere of action, so has the other retreated into the region of meditation, or vanished behind the screen of mere verbal recognition." (Prologue to "Controverted Questions," "Essays," Vol. V., pp. 6, 7.) And again: "It is important to note that the principle of the scientific Naturalism of the latter half of the nineteenth century, in which the intellectual movement of the Renaissance has culminated, and which was first clearly formulated by Descartes, leads not to the denial of the existence of any Supernature, but simply to the denial of the validity of the evidence adduced in favour of this or that extant form of Supernaturalism. I employ the words 'Supernature' and 'Supernatural' in their popular senses. For myself, I am bound to say that the term 'Nature' covers the totality of that which is. The world of psychical phenomena appears to me to be as much part of 'Nature' as the world of physical phenomena; and I am unable to perceive any justification for cutting the universe into two halves, one natural and one supernatural." ("Essays," Vol. V., p. 39.) Employing the word "Supernatural" in the same sense as Huxley, I maintain, then, that there is plenty of justification for its use, especially as I notice that, though the phraseology of Naturalism may be partially adopted by those engaged

in Biblical and psychical research, their influence often tends to foster the spread of supernatural ideas; and this is not surprising, when a certain number of well-known scientific men have vouched for the physical phenomena of Spiritualism. *The Evidence for the Supernatural* is therefore still a subject of considerable importance in the present day; and I consequently hope that this book will appeal to a variety of readers, not only among the clergy and general public, but among rationalists also, if their attitude is rightly reflected by the author of "The Churches and Modern Thought," when he writes: "The phenomena Professor Lombroso refers to are those which have induced such eminent scientists as Wallace, Lodge, Hyslop, Barrett, and Crookes to remain or to become supernaturalists. One, and to my mind the chief, reason why these metaphysical phenomena are, as Professor Lombroso tells us, of colossal importance—why science should direct attention towards them without delay—is that, so soon as they are universally acknowledged to be manifestations occurring in obedience to one of Nature's laws—a law as yet not fully understood—the last excuse for belief in the supernatural will have vanished. Supernaturalism will receive its death-blow, and Rationalism be infused with fresh life" (p. 396).

In my review of the evidence for the supernatural, I have omitted all reference to witchcraft, because this has now ceased to be a living question, largely owing to the brilliant first chapter of Lecky's "The History of the Rise and Influence of the Spirit of Rationalism in Europe." As Lecky clearly shows there, belief in witchcraft has died, not so much from the cogency of the arguments used by any particular writer, as from its being contrary to the intellectual tendencies or mental atmosphere of the present century. Similarly, I have little expectation of convincing by my arguments those whose beliefs were formed irrevocably in childhood; but I hope that I may succeed in so influencing the mental atmosphere of the present day that future generations may find it easier to discover and hold to whatever is true in the sphere of the so-called supernatural, and that superstitions such as belief in witchcraft may increasingly be relegated to the past.

Another criticism which I anticipate, and the last which I propose to touch on here, is that one who does not belong to the Society for Psychical Research, or, at

any rate, is not engaged in psychical research, cannot adequately estimate the value of evidence for the existence of mediumistic or psychic powers. To such I am inclined to reply, that, as attending séances appears to have the effect of making some men more sceptical and others more credulous, and as the psychological atmosphere of a séance is by no means conducive to a coldly critical attitude, I believe that a calm unbiassed opinion is more easily formed in this particular type of research by studying the records of séances made by others with all reasonable care, and checked by every possible device. The late Mr. Frank Podmore had a special gift for research of this sort, and I take this opportunity of expressing my great indebtedness to his works.

As no human being is absolutely free from bias, I know that this book must suffer to some extent from this weakness; but I have tried throughout to take an impartial view of the evidence, and only to give way to that form of bias which arises from fear of being misled by inadequate or unreliable data. In spite of this, I fear, I may perhaps have shown an unjustifiable partiality towards belief in the supernatural, as I was brought up in strict Quaker principles and taught that the lives of George Fox and other saints, like St. Francis of Assisi, constituted practical examples of divine guidance.

For some of my illustrations I have gone to the Tongan Islands and New Zealand, as I was in that part of the world when this book was commenced, and other illustrations I have taken from "Occultism and Common-Sense"; but since my return to England, volumes of the *Proceedings of the S.P.R.* have been accessible to me, and I have availed myself of their contents.

I should like to state here what a valuable work has been done, in my opinion, by the Society for Psychical Research, inasmuch as it has brought together and sifted the evidence for the occult, so that it is now possible to examine the evidence at its strongest. Previously, psychic phenomena constituted a vague and floating mass of material with which it was impossible to deal as a whole, and, as soon as one claim was shown to have no reliable basis, another cropped up in its place. In saying this, however, I do not wish to imply that I think the S.P.R. has always done the sifting work well; for too many of its most active members have had no

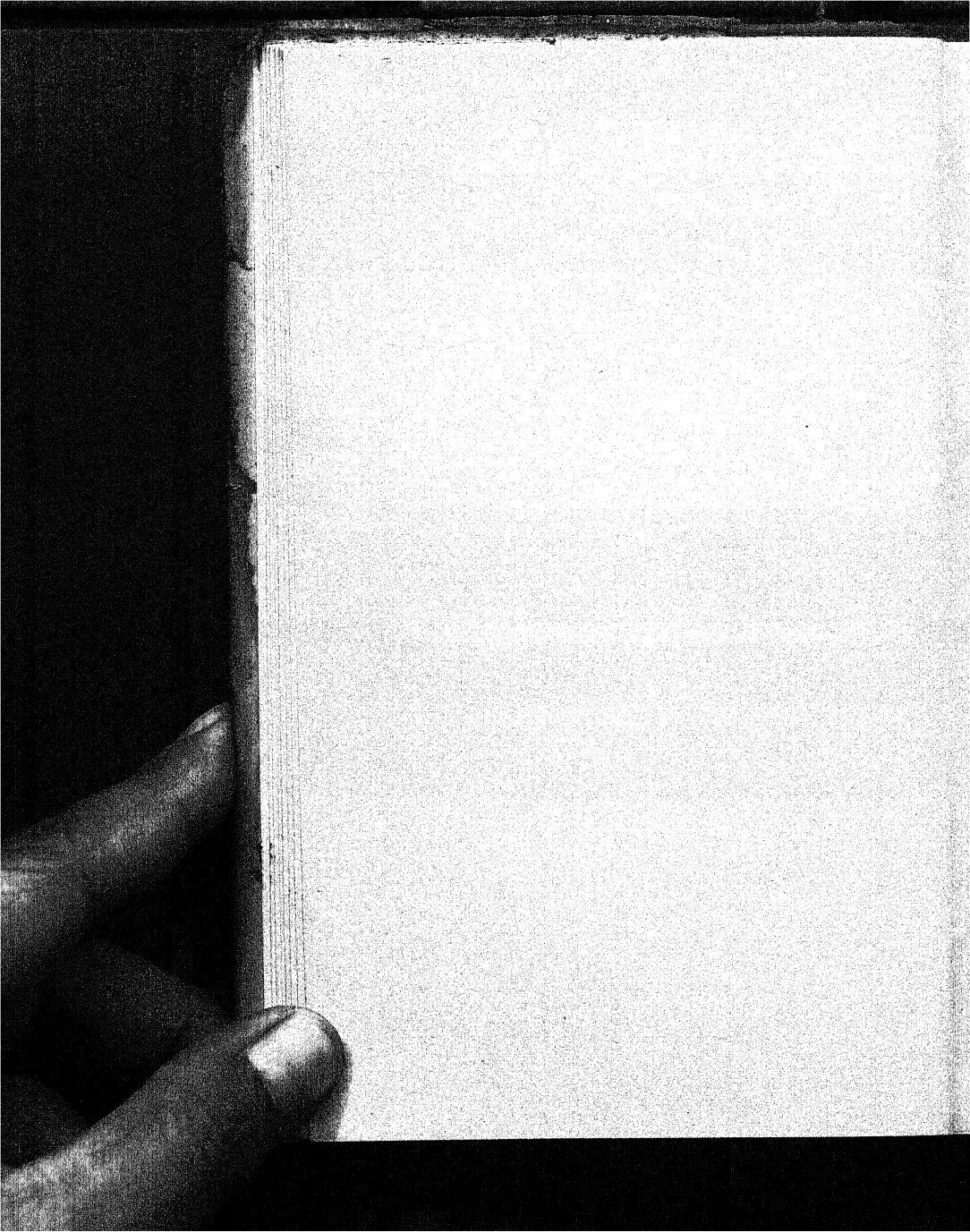
training in experimental psychology fitting them for their task, and have been the victims of pronounced bias, as sometimes they themselves have admitted, so that—in the words of Mr. Taylor Innes (“Where are the Letters?” *Nineteenth Century*, Vol. XXII., p. 189)—“we can scarcely move towards our conclusions without broadly asserting that on this side the Society of Psychical Research has shown a great laxity in testing its evidence.”

Next, I must record my thanks to Messrs. Methuen & Co., T. Fisher Unwin, and Macmillan & Co., for giving me permission to quote a large number of passages from “Modern Spiritualism,” “The Newer Spiritualism,” and “Huxley’s Essays,” respectively; and I am grateful to the proprietors of *The Times* for their courtesy in allowing me to reproduce in the appendices the “Case of Dr. Astley,” and other matter which had appeared in that journal. I am also indebted to Mr. Jarvis (and to the gentlemen acting with him in the matter of the £1000 challenge) for allowing me to inspect the documents in the “Case of Mr. and Mrs. Ames.”

OCTOBER, 1911.

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CHAPTER I

WHAT IS TRUTH?

IF I were attempting more than a popular treatment of a very difficult subject, it would be necessary to consider at length the nature of truth and its test, and to discuss how far reality may be said to attach to all our conscious impressions of sense, and to what extent there is correspondence between the order of our ideas and the order of phenomena. But, important as it is to realise how a knowledge of the universe and of self is built up in the human mind, I do not think it necessary for my purpose to do more than refer my readers to one of the many excellent text-books of Psychology, where these difficult subjects—such as the growth of ideas of time and space—are treated much more ably than I could handle them myself.¹ My purpose being rather to write from the point of view of the man-in-the-street, I shall start with the assumption that the ordinarily accepted facts of life are true—such as that we exist, that the impressions we get through our senses correspond to qualities of real objects outside us—and I shall also assume as true the so-called laws of Nature, *e.g.*, Gravitation, Chemical Affinity, etc.² But although I start with these assumptions, and omit discussing the theoretical nature of a “true proposition,” yet it is necessary to consider what should be our practical standard of truth; and in trying to give a rational answer to the question, “What is Truth?” I shall hope to gain the sympathetic interest of those readers who, like Pilate, realise that a summary solution of this question is far from easy.

I am convinced that most people are quite unaware—at any rate consciously—what is the basis of their standard of truth; so I shall first of all examine a state-

¹ In particular, I would recommend for perusal William James's “Principles of Psychology,” Herbert Spencer's “First Principles,” and the introduction to G. H. Lewes's “History of Philosophy.”

² Natural laws are based on the accumulated experience of mankind, which includes all knowledge gained through the bodily senses, since “intuitive necessary truths” have been shown to have no existence apart from experience. (See G. H. Lewes, “Prolegomena,” §§ 66–69.)

ment about some natural phenomenon which is unanimously believed to be true, and try to discover the practical basis of that belief. The statement in question, which I feel I can confidently make without fear of contradiction, is the assertion that *the sun will rise to-morrow*. The sun, in its daily journey across the sky, being one of the most striking and frequent of human experiences, has been observed with some care from the earliest times, so that the first astronomers, more than four thousand years ago, had been able by careful observation to collect sufficient data on which to build up theories and formulate laws about its movements, the truth of which could be tested by deducing therefrom the position of the sun in the future and seeing if the prediction came true. With more exact observations and with greater knowledge it was established that the earth moved round the sun; but for practical purposes the laws governing the apparent movements of the sun around the earth were almost as well known in Egyptian times as to-day. The essential point to realise is that the method of establishing the truth of the laws governing the sun's movements was essentially one of verification. When deductions were made from general laws built up by induction from a long series of observations, and the first predictions came true, it might have been only a case of coincidence. But with every repetition of a correct prediction based on these laws, the probability of these laws being true was proportionately increased with a proportionate decrease in the probability that coincidence could be accepted as explaining the correspondence between the predicted and actually observed movements of the sun.

Similarly, we who are alive not only can make for ourselves the observations on which the laws of the sun's movements are based, but we can also predict the sun's movements and daily verify the correctness of our predictions; so that observing the sun rise day by day is of the nature of an experiment, verifying the truth of what we have been taught or learnt for ourselves about the sun. And it is an experiment which has never failed to give the expected result every day that we have lived, and which, as far as we can tell from human records, has never failed within the memory of man. Therefore we have good grounds for believing that we understand the laws or conditions under which the earth revolves round the sun. On the other hand, it is conceivable

that some day an unforeseen factor might completely alter the nature of what we call sunrise, so that we cannot assert in an absolute sense that the sun will rise to-morrow. But from the fact that our knowledge of the earth's movements is based on such an exact and extended series of observations, combined with almost numberless verifications, the probabilities are so enormously in favour of conditions not altering within the next twenty-four hours that for practical purposes we regard as truth itself the statement that the sun will rise to-morrow.

I have read in theological works the argument that as the certainty of to-morrow's sunrise cannot be proved in an absolute sense, belief in its coming is a matter of faith. And this argument is generally used as if it were a special discovery of theologians, and was a conclusive answer to men of science, who insist on the importance of experiment and the reliability of knowledge gained through the bodily senses—if the observations made with these are carefully verified—as opposed to beliefs based on unverified and unverifiable evidence. But, as a matter of fact, science does not deny that there is an element of faith in many statements made in her name. What it is important to note, however, is that in all problems where faith is required the deciding factor is probability, which is measured by the difficulty of thinking the negative of any proposition explaining the problem. Thus in the case of an identical proposition like *A is A*, or *a cat is a cat*, the negative is unthinkable; and similarly, in the case of a proposition which admits of being tested by sense, such as *ice is cold*, the negative is also unthinkable. In both these cases, because the negative is unthinkable, there is room neither for probability nor for faith, and they may be called *absolute truths*. In fact, there are no absolute truths, except such as express an unconditional generalisation, such as the above examples and our conceptions about mathematical relations. For all other *truths* are contingent on conditions remaining constant; and every truth becomes invariable only so long as conditions do not vary. Thus in more complex propositions, such as *the sun will rise to-morrow*, which do not express merely an abstract relation, the negative is not absolutely unthinkable. However, to think the negative is so difficult that there is the highest degree of probability that the proposition expresses the truth. This, then, is the first conclusion we have reached, that no proposition is absolutely true except such as expresses

an unconditional generalisation, while any truth dependent on conditions requires faith. *And Probability is given by a Process of Verification.*¹

This is the essence of a scientific standard of truth. Briefly stated, it insists that all observations and inferences made therefrom should be verified, and that only by combining the objective method (verification) with the subjective method (induction and deduction) can truth be established and knowledge enlarged.

Further, in complex problems where there are many factors, and truth can only be established on the contingency that conditions are constant and known, it is essential that the process of verification should be repeated if a high degree of probability is to be attained. Thus, in the case of a proposition like *the sun will rise to-morrow*, it is extremely difficult to think the negative, not so much because there has been verification on isolated occasions, but rather because the process has been repeated so many times. As we have seen, when the first predictions made by mankind about the sun's movements came true, it might have been merely a case of coincidence. But with every repetition of a correct prediction such an explanation became less probable. For the oftener an

¹ Our belief in the constancy of the order of Nature only rests on probability, although it is one to which we hold most firmly, and which we allow to influence the practical decisions of our lives at every turn, as Huxley said: "But we must recollect that any human belief, however broad its basis, however defensible it may seem, is after all only a probable belief, and that our wisest and safest generalisations are simply statements of the highest degree of probability. Though we are quite clear about the constancy of the order of Nature at the present time, and in the present state of things, it by no means necessarily follows that we are justified in expanding this generalisation into the infinite past, and in denying absolutely that there may have been a time when Nature did not follow a fixed order, when the relations of cause and effect were not definite, and when extra-natural agencies interfered with the general course of Nature. Cautious men will allow that a universe so different from that which we know may have existed, just as a very candid thinker may admit that a world in which two and two do not make four, and in which two straight lines do enclose a space, may exist. But the same caution which forces the admission of such possibilities demands a great deal of evidence before it recognises them to be anything more substantial. And when it is asserted that, so many thousand years ago, events occurred in a manner utterly foreign to and inconsistent with the existing laws of Nature, men who, without being particularly cautious, are simply honest thinkers, unwilling to deceive themselves or delude others, ask for trustworthy evidence of the fact." ("Essays," Vol. IV., pp. 48, 49.)

experiment is repeated, the greater chance there will be of detecting fallacies in our observations and inferences and of discovering the presence of unsuspected factors or conditions. Thus it is repetition of the process of verification which impresses our minds; and belief can only be held with the highest degree of probability when this standard or test of truth has been applied.

Here it must be clearly understood what is the meaning of the phrase *repetition of the process of verification*. It does not mean merely the devising or carrying out of a variety of experiments designed to elucidate a complex problem. For this is an attempt to carry out the process of verification in a variety of ways, and is not the same thing as repetition of the process of verification in a single or particular way. An experiment or experience can only be said to have been repeated when the conditions under which it has been carried out have remained approximately identical. For as the truth of any proposition is contingent on conditions remaining constant, so repetition of an experiment adds to the cogency of the process of verification only when the conditions have remained constant. Consequently, when we devise a variety of experiments designed to elucidate a problem, it is essential that each experiment should be repeated under conditions as nearly identical as possible; and if the conditions vary in a series of experiments, we cannot claim to have repeated the process of verification, for each time that the conditions varied it was a different experiment which we were carrying out. This is apt to be forgotten in physiological and psychological experiments, in which an attempt is made to discover a causal connection between two groups of facts or between a group of facts and a hypothetical explanation. Thus, in the records of the Society for Psychical Research, one comes across a number of experiments or experiences which were never repeated under approximately identical conditions; and in illustration of the need of taking the utmost pains to keep the conditions under which an experiment is performed as identical as possible, I quote the following instance from my own experience:—

I once undertook some experiments to find out the effect of injecting into animals a particular kind of serum. I was hoping that it would produce a particular effect, and I was delighted to obtain the result I expected in my very first experiment. On repeating

the experiment thirty or more times I obtained the same result in varying degrees in all but a very few experiments. Still I was not satisfied that I could be sure of a causal connection between the injection of the serum and the effect observed, till I had performed some control experiments. By *control experiments* one means observing the effect of the experimental conditions apart from the definite injection or procedure, the effect of which is being investigated. In this particular instance, instead of injecting serum, I injected a weak solution of salt; and now, in some ten experiments, I did not get the effect I had before observed after injecting serum. I then thought that I had proved a causal connection between the injection of this particular kind of serum and the effect observed. But subsequent experiments suggested by this apparent discovery showed that there was a fallacy somewhere, and ultimately I found that my ten control experiments had given me a misleading result in the following way. The animals used for my control experiments happened to be in all cases animals I had bought the day before they were used; and they were in consequence thin and half-starved, in very different condition from any animal I had kept in the laboratory for a few days or weeks. In a starved animal the liver is poor in a substance called glycogen, and the effect I had observed after injecting serum depended very largely, as I ultimately found, on the presence of glycogen in the liver. I did some more control experiments in well-fed animals; and then I obtained exactly the same result as after the injection of serum. Consequently, there was no causal connection between the injection of serum and the effect observed, which was purely the result of the experimental conditions depending both on the influence of the anæsthetic and on the stimulation of visceral nerves. This case illustrates very well the difficulties of research, and how easily a fallacy creeps in, unless one has the most rigid standard of truth: namely, to admit no causal connection until one has obtained the same result very many times under approximately identical conditions with control experiments clearly confirming; so easy is it to be deceived either by defective and biased observation or by ignorance of all the factors concerned in the problem. In this case, through experimenting with animals in a different state of nutrition, I wasted many months of work in the belief that my first set

of control experiments were performed under conditions identical with those under which I performed my other experiments.

Lastly, in any complex problem, provided that the process of verification is applied in a satisfactory manner, it is, of course, desirable to apply the process in as varied a way as possible. Thus the conditions governing the apparent movements of the sun and the motions of the heavenly bodies have been found out largely by making long series of observations at different points of the earth and at different times. But the essential factor of success has lain in making certain of the accuracy of each series by constant repetition. Consequently, in any problem where the process of verification has been applied in a variety of ways, and where our reason tells us that there is a very high degree of probability that the truth has been discovered, the essential point to remember is that the process of verification has been repeated in at least one way. And so we arrive at a rule which may be stated as follows: *In problems where repetition of the process of verification is not possible, the truth cannot be ascertained with a degree of probability entitling us to hold more than a strong positive opinion, and the only rational attitude is humbly to say: "We do not know."* This rule can be taken as the basis of a practical standard of truth.

Very different is the standard of truth of the average man in dealing with what may be called "supernatural problems"; for in these he is prone either to yield credence to the teaching of authority without demanding proof satisfying a scientific standard of truth, or to be himself convinced by some striking personal experience which very often amounts to no more than a single experiment.

A good example of what I mean and witness to this tendency in human nature is afforded by a monument which stands in Devizes market-place, recording how on that spot a woman was once blasphemous enough to wish that God would strike her dead if she was not speaking the truth, and how immediately she dropped down dead.¹ In this instance there is no question of

¹ The complete inscription on the stone runs as follows: "The MAYOR AND CORPORATION OF DEVIZES avail themselves of the Stability of this Building to transmit to future times the Record of an awful event, which occurred in this market place in the year

the facts; but at the same time they do not prove that God struck her dead. On the contrary, any one who was disinclined to believe the "supernatural" explanation of the facts might point out another probable explanation by recalling numerous instances where fear of the terrible consequences of some act had led to syncope—sudden stoppage of the heart—and death. For instance, in a book called "Old New Zealand" (p. 95), by Judge Maning, the case of a Maori is recorded, who, unwittingly having eaten some food reserved for a chief, died very soon afterwards from the fear awakened by his belief in the terrible consequences which would overtake him for having eaten this sacred food.

Similarly, I have myself seen at least two men drop down dead from the nervous fear engendered by being examined at a hospital and seeing the terrible word "asthenia" written on their paper as the disease from which they were suffering. I may add that "asthenia" merely means weakness, and is often written when it is difficult to make out any definite disease. In both these cases the men had enlarged hearts, with the walls weakened by fatty degeneration.

However, there is no reason for thinking that so-called supernatural problems are not suitable questions for the reason to deal with, and therefore are not amenable to the same tests of truth as natural problems in settling their probability. The chief difficulty is that nearly all supernatural experiences are of such a nature that they are incapable of repetition under approximately identical conditions, and therefore are necessarily of the nature of single experiments. Consequently, we are unable to say with a degree of probability amounting to certainty that

1753, hoping that such record may serve as a salutary warning against the danger of impiously invoking Divine vengeance, or of calling on the Holy name of God to conceal the devices of falsehood and fraud.

"On Thursday, the 25th of January, 1753, Ruth Pierce, of Potters, in this county, agreed with three other women to buy a sack of wheat in the market, each paying her due proportion towards the same. One of these women, in collecting the several quotas of money, discovered a deficiency, and demanded of Ruth Pierce the sum which was wanting to make good the amount; Ruth Pierce protested that she had paid her share, and said she wished she might drop down dead if she had not. She rashly repeated this awful wish, when, to the consternation and terror of the surrounding multitude, she instantly fell down and expired, having the money concealed in her hand."

we understand all the factors or conditions involved in any supernatural problem. This being the case, the only rational attitude, as we have seen, is one of humble agnosticism. At the same time, the solution of many of these questions is of such practical importance to us that it is hardly possible to avoid holding a very strong opinion or belief about the "supernatural." And in fact there is nothing unscientific or unreasonable about "making up our minds" on these subjects, if we do not profess to found our opinions on a supernatural standard of truth superior to that of science, and if we also recognise the importance of possessing as great a knowledge of the facts of life as possible.¹ For convictions based on probability may subsequently have to be given up, if with wider experience our reason tells us that the old beliefs do not harmonise with or explain the newer facts and therefore are not probable. As G. H. Lewes says ("Prolegomena," § 35):

"Finally, it is notorious that our experience, even when uniform, is narrow; so that when a man affirms anything on the guarantee of its negative being unthinkable, we can disturb his confidence by showing that the negative is thinkable and conformable with a wider experience."

And yet at first sight there is something to be said for the habit of mind of the mystic, whereby he has a standard of truth for personal religious experiences different from that which he has for solving physical problems. For an introspective or a self-conscious experience is apt to carry a sense of cogency even greater than that attaching to impressions derived through the five senses; and if only we could find good reasons for trusting in an absolute sense the cogency attaching to a personal spiritual experience, that alone would constitute a good reason for having a double standard of truth. But can we?

¹ Huxley maintained that agnosticism was not merely a negative attitude, when he wrote: "... a man may be an agnostic in the sense of admitting he has no positive knowledge, and yet consider that he has more or less probable ground for accepting any given hypothesis about the spiritual world. Just as a man may frankly declare that he has no means of knowing whether the planets generally are inhabited or not, and yet may think one of the two possible hypotheses more likely than the other, so he may admit that he has no means of knowing anything about the spiritual world, and yet may think one or other of the current views on the subject to some extent probable." ("Essays," Vol. V., p. 328.)

In the domain of physical research the necessity for a rigid standard of truth arises from the fact that not only are we liable to be the victims of bias in interpreting the data obtained with the use of our five senses, but also that our senses themselves are subject to disturbing factors leading to error. These may be wholly central—that is, associated with subtle changes in the higher centres of the brain—as shown to an exaggerated degree in the condition known as “delirium tremens,” where the victim of inebriety may see objects (*e.g.*, snakes or rats) corresponding to no external reality, or they may be situated in the peripheral part of the sense organ, as, for instance, where the floating bodies in the vitreous humour of the eye—known as “*muscæ volitantes*”—by casting a shadow on the retina, have often led people to think they saw bodies floating about in the air which had no real existence. Again, the impression gained through a sense may be masked or altered by changes set up in that sense-organ by previous or simultaneous stimuli of a different nature, as, for instance, where our impression of some colour is quite altered by the contrast of some other colour, or where our sense of taste is totally different after some drug like cocaine. Now, though these examples of perverted sense-impressions are well marked and obvious, it is impossible to draw any sharp dividing line between them and more subtle conditions. Varying degrees of fatigue, for instance, of which it is most difficult to be aware, may at any time be a subtle cause of error in making observations with our senses.

Similarly, in the domain of self-consciousness, as every mental phenomenon is associated with some material change in the brain, it is obvious that here, too, there will be a likelihood of circulatory, chemical, and other subtle changes affecting the nature of our spiritual impressions. And it is impossible to draw a sharp line between obviously morbid experiences, such as those described in a paper entitled “Certain Mental Changes that Accompany Visceral Disease,” by Henry Head (*Brain*, XXIV., 1901), and the phenomena resulting from less pronounced degrees of fatigue or disease. Again, the influence of early training admittedly colours the complexion of our self-conscious experiences. Thus, a child who has been taught that a certain course of action is wrong will be liable to have qualms of conscience in regard to this particular act, although it may be something which a member of another race or creed might

regard as absolutely harmless. For instance, the example already given of the Maori dying after eating food reserved for a chief illustrates well the operation of conscience under circumstances which would leave an Englishman unaffected. And similarly, in insanity, the nature of the delusion depends very largely on the character of the ideas which have formed the child's mind. Thus, a Roman Catholic, who firmly believes in the infallibility of the Pope, and in the power of his Church to give absolution for sin, never becomes the victim of the delusion of having committed the "unpardonable sin," whereas it is a comparatively common delusion among Calvinists who get mentally deranged. Now, as all psychologists tell us, it is impossible to draw a sharp line between sanity and insanity, so we are all liable to have our conscious life more or less coloured by delusions, which, in these slighter forms, we call bias. Even the Roman Catholic Church admits the truth of this, as shown by the fact that, recognising the danger of trusting to the guidance of conscience in an absolute sense, she insists on the necessity of admitting "authority," and submitting thereto personal experience. And without necessarily admitting the authority of the Catholic Church, every thoughtful man will acknowledge the wisdom of this principle; for the history of Quakerism illustrates well the danger of trusting absolutely to the guidance of conscience, as, for instance, when George Fox ran about Lichfield market-place shouting: "Woe to the bloody city of Lichfield."

A further illustration, for the truth of which a medical friend vouches, is so typical that I feel justified in inserting it here. A minister in the "Society of Friends" was overworked and suffering from depression. One day, in obedience to the voice of conscience, he tried to drown himself. On finding himself in the water, the natural animal instinct of self-preservation made him struggle to the bank. There he crawled out of the water, and, kneeling by the river-side, asked God in prayer if He had not made a mistake in telling him to drown himself. He imagined that God, in the form of the voice of conscience, answered: "It was no mistake. You did right in following your conscience." So the poor man threw himself in the river a second time, and a second time his instinct of self-preservation impelled him to struggle out. Then he made his way to the

nearest police station, and so came under medical treatment.

Now, since it is just because our impressions of sense are so untrustworthy ¹ that we require a rigid standard of truth in dealing with natural problems, and since our reason only admits a high degree of probability or proof when the process of verification has been repeated again and again, there can be no good reason for attaching a superior cogency to personal religious experiences, which not only may be influenced by morbid bodily processes, as we have seen, but also are seldom, if ever, capable of verification or repetition.

If, then, what I have written has found acceptance with the reader, he will agree that *the only reasonable attitude for a sensible man to adopt towards any problem dealing with the supernatural, which cannot be submitted to a scientific standard of truth, is that of saying, "I do not know, yet such and such is my opinion," and that in these cases, the wider his experience, the more probably will his opinion approximate towards the truth.*

¹ As G. H. Lewes says ("Prolegomena," § 38): "Subjective agreement is as perfect in hallucination as in perception, which M. Taine happily calls *une hallucination vraie*. How then are we ever to be certain that our formulas are true, that the order of our ideas is in correspondence with the order of things? . . . When all the senses converge, when all the evidence corroborates, we are forced to believe in the objective reality, unless we declare all existence to be a dream."

CHAPTER II

THE VALUE OF EVIDENCE

HAVING now defined our attitude towards truth, and shown the difficulty of attaining certainty, we are ready to study the evidence for the "supernatural." But before doing so we must consider what constitutes valuable evidence in general, as the nature of our opinions on questions dealing with the "supernatural" turns very largely on our realising the value of evidence.

To the ordinary mind the word *evidence* will suggest a legal rather than a scientific connotation. But for our present purpose the scientific use of the word chiefly needs our consideration. For, whereas lawyers for practical purposes have to rest content with human evidence rendered fairly accurate by cross-examination and other legal methods, science rests content with nothing less than the greatest accuracy possible, though she recognises that absolute accuracy may never be attained.

There are many factors tending to render human evidence unreliable; but the sources of error may roughly be divided into two main classes under the headings (a) physical, (b) psychical. As regards the former class, I do not propose to say much, since it is obvious that alterations in the sense-organs themselves, as indicated in the last chapter, may lead to faulty observation. It is rather the psychical or mental causes of unreliable or inaccurate evidence that I wish to dwell upon. In this connection human evidence must be looked at from two points of view: that of observation and that of interpretation. For, in the first place, a man may be unreliable in the observations he makes, and in the second place, even if the facts are correctly observed, his interpretation of them may be entirely wrong.¹

In order to make accurate observations, a certain amount of training is necessary. Just as it takes practice to become a good public speaker, though every man has

¹ Dr. Hodgson wrote an article on "The Possibilities of Mal-observation" in *The Proceedings of the S.P.R.*, Vol. IV., p. 387, where many good illustrations of this source of error in a story are given.

the organs for speaking, so the possession of a pair of eyes does not in itself give the power to use them or to express accurately what is seen with them. The average man has no idea how difficult it is merely to observe the minutiae of almost any phenomenon, till he has attempted the task of solving some problem on the lines of a scientific research. A certain amount of training—that is, of knowledge—is almost essential in order to enable one to be on the look-out for phenomena which are likely to take place. On the other hand, an even greater source of error is the bias of some preconceived theory as to what is likely to take place, quite unconsciously blinding one to what actually takes place, and leading one to see phenomena which never occurred at all. It is a similar type of bias developed in childhood which has done so much to perpetuate religious differences in the world; for the adult mind, which can reason quite well on matters about which it feels no bias, is apt to have its reasoning faculties fettered in favour of that view which has got linked up with an emotional interest, such as is given by association with childhood's teaching, connected as it often is with early memories of a beloved mother. Of course it is well-nigh impossible to approach any problem, even one of purely scientific interest, without having some preconceived views on the subject. But it is the mark of a great mind that, as soon as it finds that the facts will not support these views, it is ready to abandon them. It is this quality among others which has made certain scientific men—Darwin, for instance—so eminently great.¹

The psychical causes of unreliable observation, apart from obvious physical disabilities, are thus due to *want of training and bias*. Very similar are the causes of the erroneous interpretation of phenomena which may have

¹ Mr. Taylor Innes has a very pertinent passage about the effect of bias in tales of the supernormal and in psychical researches, where he says, "The truth is, the great difficulty in this matter"—(the question of phantasms of the living)—"has always been (on the side both of experiment and testimony) that men have generally been too restless to deal with it according to simple and scientific rule, and have been found, almost as soon as they were unwatched by the eyes of others, scratching at the wall of the unseen. For this reason, I have always expected most from inquirers who had no great personal interest, religious or irreligious, in this matter, whose faith in the unseen was already solidly based on moral considerations, and whose object as investigators was merely to conquer for science a small strip of neutral ground." ("Where are the Letters?" *Nineteenth Century*, Vol. XXII., p. 193.)

themselves been accurately observed. For, in order to see the proper bearing of any set of facts, we require the appropriate kind of training. Thus, we do not go to a doctor for a reliable opinion on a legal question, nor to a lawyer for a medical opinion. In fact, though the need for expert opinion in life may be exaggerated, it cannot be dispensed with in the present state of differentiated knowledge. Then bias, again, is a source of error, even greater perhaps in the interpretation than in the observation of phenomena. Unless the reasoning faculties are unhampered by preconceived views they are very liable to lead one astray in assigning cause to effect.

One of the best illustrations of mal-observation combined with erroneous interpretation of the phenomena is the famous case in which the Master of Lindsay, Viscount Adare, and Captain Wynne, thought they saw the medium, Daniel Douglas Home, float out of one window and in at another at 5, Buckingham Gate, London, on December 16th, 1868. Here is the account written by Lord Lindsay on July 14th, 1871, about two and a half years afterwards, and published in a pamphlet entitled "Psychic Power—Spirit Power, Experimental Investigation" (London, 1871):

"I was sitting with Mr. Home and Lord Adare and a cousin of his. During the sitting Mr. Home went into a trance, and in that state was carried out of the window in the room next to where we were, and was brought in at our window. The distance between the windows was about seven feet six inches, and there was not the slightest foothold between them, nor was there more than a twelve-inch projection to each window, which served as a ledge to put flowers on. We heard the window in the next room lifted up, and almost immediately after we saw Home floating in the air outside our window. The moon was shining full into the room; my back was to the light, and I saw the shadow on the wall of the window-sill and Home's feet about six inches above it. He remained in this position for a few seconds, then raised the window and glided into the room feet foremost and sat down."

The account of the phenomenon given by the same observer to the Committee of the Dialectical Society in July 1869, only about six months after the occurrence, is also worth reproducing for comparison:

"I saw the levitations in Victoria Street when Home floated out of the window. He first went into a trance and walked about uneasily; he then went into the hall. While he was away I heard a voice whisper in my ear, 'He will go out of one window and in at another.' I was alarmed and shocked at so dangerous an experiment. I told the company what I had heard, and we then waited for Home's return. Shortly after he entered the room. I heard the window go up, but I could not see it, for I sat with my back to it. I, however, saw his shadow on the opposite wall; he went out of the window in a horizontal position, and I saw him outside the other window (that is, the next room), floating in the air. It was eighty-five feet from the ground." ("Report of the Dialectical Society," p. 214.)

As the séance took place on the third floor, it is obvious that eighty-five feet is an inaccuracy in the report; but perhaps it is only a clerical error for thirty-five feet.

The discrepancies in the two accounts are doubtless due to inaccurate reporting, but the statement about the shadow cast by the moon is an instance of mal-observation, as the moon was new on December 13th, 1868, three days before the séance. In both accounts the impression is given that the observer saw Home floating in a horizontal position. Now, as Lord Adare states that Home stood upright, one of the two observers must have been mistaken. Here is Lord Adare's account:

"We heard Home go into the next room, heard the window thrown up, and presently Home appeared standing upright outside our window; he opened the window and walked in quite coolly." ("Life of D. D. Home," by his wife, p. 301.)

The only observation from Captain Wynne is contained in a letter to Home dated February 2nd, 1877, and runs as follows:

"The fact of your having gone out of one window and in at the other I can swear to." ("Life of D. D. Home," p. 307.)

I give no further commentary on the case myself, as all that can be said has been put so well by Mr. Frank Podmore, who devoted the best years of his life to the investigation of psychical problems. He writes:

"It is to be noted that, as we learn from Lord Adare's account, there was no light in the room during

the séance, except such as came through the window (from a moon two days old); that Lord Lindsay had, at an earlier period of the evening, seen an apparition of a man sitting in a chair; that one of the spirits before the performance had announced what it was proposed to do; and finally that on a previous occasion a few days before, in the presence of two of the same witnesses, Home had opened the same window, stepped on the ledge outside, and remained standing there, to the great alarm of Lord Lindsay, looking down at the street some eighty feet below. The medium had thus, as it were, furnished a rough sketch of the picture which he aimed at producing. Whatever the nature of the complex illusion, however, whether of sense or of memory—or, as seems likely, of both—it is certain that it was shared in the retrospect by all the three persons present. Actually, however, the collective part of the illusion is seen in analysis to have been of a comparatively unimpressive kind. From Lord Lindsay's account, the most detailed record which we have of the actual levitation, it would seem that Home, probably after having announced that the spirits were about to carry him through the air from one window to another, left the room. A sound was heard, which may or may not have been due to the cause which it suggested, the opening of the window in the next room. Shortly afterwards Lord Lindsay, who had his back to the window, saw on the opposite wall a shadow thrown by the faint moonlight, which suggested to him that Home was outside the window; and he appears to have accepted the assurance of the 'spirits' that in fact the medium had been conveyed to that point through the air from the window ledge to the adjoining room. Whether Lord Adare or Captain Wynne had their eyes turned towards the window, or generally upon what impressions of sense they based their conviction that Home had actually been levitated, does not appear. Remembering that the room was lighted only by a moon two days old, we are clearly not justified in attaching more weight to their general statements than to the detailed record of Lord Lindsay. How much that record is worth as evidence for a miracle, the reader, with the depositions before him, may judge for himself." ("Modern Spiritualism," Vol. II., p. 258.)

To complete the review of this case, I am adding the following paragraph from Professor Newcomb's article on "Modern Occultism" (*Nineteenth Century*, No. 383, p. 137):

"Now, if we admit the existence of gifted individuals having such abnormal powers as these, why not equally admit the existence of men having the faculty of seeing, or thinking they remember having seen, the non-existent? The latter certainly seems much easier to suppose than does the former. It is a familiar fact of physiological optics that, in a faint light, if the eyes are fixed upon an object, the latter gradually becomes clouded and finally disappears entirely. Then it requires only a little heightening of a not unusual imagination to believe that, if the object that disappeared was a man, he wafted himself through the air and went out of the window."¹

A third source of error which ought perhaps to be mentioned, as it is frequently seen in connection with Spiritualism, is the tendency of an idea or story to grow in the mind. Consequently, a most necessary part of the equipment for doing scientific research is the habit of noting down accurately phenomena as they occur. If the record of an experiment is not made till later, it is so easy to deceive oneself under the influence of bias or faulty memory, and imagine afterwards, quite genuinely, that phenomena took place which actually never occurred.²

¹ For a fuller account of and commentary on this remarkable case the reader should refer to Podmore's "Newer Spiritualism," pp. 66-72. It ends as follows: "What no doubt happened was that Home, having noisily opened the window in the next room, slipped back under cover of the darkness into the séance room, got behind the curtain, opened the window, and stepped on to the window-ledge."

² In other words, a narrator's belief in his own belief is of minor consequence. "What really is important," as Mr. Innes says, "and in the ordinary case is conclusive, is a writing which passes out of the hand of the 'percipient' or dreamer, before the news reaches him, which confirms from without what he has already written and sent away. And most fortunately this, which is the conclusive case, must be also a very common one" (*Nineteenth Century*, Vol. XXII, p. 177). But, curiously enough, in stories alleging the crossing of letters or the making of a note in a diary, the letters or the diary can hardly ever be produced. Consequently, the absence of documentary evidence, in cases where it can reasonably be demanded, gets to have almost a positive value, and becomes "nearly as conclusive against a story as the presence of such evidence would be in its favour."

Thus I myself was once witness and cause of an instance of supposed telepathy on the part of my wife. I was on a long journey from home when I broke my leg, and, not wishing to cause my wife anxiety, I did not mention the fact in writing to her next day. But knowing that she would get to hear of it, I thought I would prepare her for the news by making a joking reference to how I should behave under certain conditions if I had a broken leg. Her answer to this letter showed not the least anxiety, and implied how much she had been amused by my little joke about a broken leg. Yet months afterwards I heard my wife telling some friend how, when I broke my leg, she had an intense feeling of anxiety, and knew at the time that some dreadful accident was taking place.

Another example illustrating the need for a written and dated document at the time of an occurrence, if we are to be sure of the accuracy of a remembered event, is furnished by the well-known case of Judge Hornby:

"In the *Nineteenth Century* for July 1884 an article appeared from Messrs. Gurney and Myers, which was justly regarded as affording the most indisputable evidence ever adduced for the reappearance of a dead person. Sir Edmond Hornby, a judge of the Consular Court at Shanghai, had been visited during the night by a reporter desiring a copy of a decision which he was to deliver on the following morning. He rose from his bed, dictated what he had to say, and dismissed the reporter with a rebuke for having disturbed him. Next morning, on going to court, he was astounded by learning that the reporter, with whom he was well acquainted, had died suddenly during the night. Inquiring after the hour of the demise, he found it to coincide with that of the nightly visitation. The authors also informed us in the article that the story was confirmed by Lady Hornby, who was mentioned in it, and was cognisant of the circumstances.

"This narrative was almost unique in that it admitted of verification. When it reached Shanghai, it met the eyes of some acquainted with the actual facts. These were made known in another publication, and showed that several months must have elapsed between the reporter's death and the judge's vision. The latter was only a vivid dream about a

dead person. When the case was brought to the judge's attention, he did not deny the new version, and could only say he had supposed the facts to be as he had narrated them." (Quoted from Professor Newcomb's article on "Modern Occultism," *Nineteenth Century*, No. 383, p. 135.)

A fourth source of error may be the omission of some pertinent detail in the account of an occurrence, which otherwise does not deviate from the truth in any particular. Professor Newcomb, in the article above cited, gives an excellent example. He says:

"I once examined an interesting case of this kind at the request of Dr. Hodgson. A naval ship had been wrecked in a storm off Cape Hatteras some years before, and most of those on board, including the captain, had perished. Before she sailed on her voyage, one of her officers was seized with so strong and persistent a presentiment that the ship would be lost, that he formally requested to be detached from her. This being refused, he left his post of duty and was tried by court-martial for desertion. Dr. Hodgson desired me to see whether this story could be verified by the official records. This was easily done, and the narrative was found to be substantially correct so far as it went. But it omitted to state that the officer had exhibited symptoms of mental aberration before his presentiment, that the latter was only one of a great number of wild fears which he had expressed to various parties, including his superior officer, and that several months elapsed after this before the ship sailed on her fateful voyage, she having in the meantime made several trips on the coast. When thus completed, the story became altogether commonplace."

But the errors of omission can really be included in the larger category of "inaccurate reporting," perhaps the commonest source of error permeating psychical literature. In illustration of this tendency, the following passage from Podmore's "Modern Spiritualism" is worth quoting:

"A striking instance of inaccurate reporting is furnished by Miss Martineau. In her 'Letters on Mesmerism' she relates that a vague report had come on Sunday, October 13th, 1844, to the house at

Tynemouth where she was then lodging, that the boat in which a cousin of her clairvoyant subject, Jane, was sailing had been wrecked. On the Tuesday evening no authentic news as to the fate of the sailors had, according to Miss Martineau, reached the house up till 8 p.m. At that hour a séance was held, and the entranced Jane gave the joyful news that all on board were saved, except one boy, and that the boat which rescued them was a foreign one. At the very hour, Miss Martineau adds, when this intelligence was being delivered in her sitting-room, the sailor's mother, who had come in after the commencement of the séance, and without the knowledge of Miss Martineau and her circle, was telling the same story in the kitchen, two floors below. In his 'Illustrations of Modern Mesmerism,' Forbes shows, on the evidence of a local doctor and of one of the witnesses at the séance, that the good news was actually known in the house three hours before the sitting. Miss Martineau's deafness may have accounted for the misunderstanding. In her 'Autobiography' (edition of 1877, Vol. II., p. 198), Miss Martineau, referring to Forbes's action in the matter, states that she holds a legal declaration, which 'establishes the main fact on which the somnambule's story of shipwreck was attempted to be overthrown.' But she gives no particulars, nor attempts to refute Dr. Forbes's exposure in detail." (Vol. I., p. 153, footnote.)

It is owing to the recognition of all these sources of error in human evidence,¹ when witnesses are not consciously trying to deceive, that science has found it necessary to have such a rigid standard of truth; namely, to be agnostic about any causal sequence, until the phenomena have been repeated under the same conditions a sufficient

¹ An eminent judge, whose opinion I once asked about the trustworthiness of evidence, told me that, in his experience, most witnesses tried to tell the truth, but were quite incapable of doing so. On the other hand, he thought he generally knew by small subconscious signs, such as furtive glances, if a witness had made up his mind beforehand to lie.

Podmore, who probably had investigated more stories of the supernatural than any of his contemporaries, summed up his experience as follows: "It seems difficult to place any limit on the untrustworthiness of human testimony, especially in cases where the emotions are involved, or where there is occasion for edification." ("Telepathic Hallucinations," p. 36.)

number of times to convert a probability of the supposed causal sequence being true into a relative certainty. But since all history is of such a nature that repetition of any event under identical conditions is well-nigh impossible, it may be asked if any credence can be given to historical evidence at all. And an opponent of the scientific point of view apparently has a good opportunity of covering it with ridicule by arguing, as a *reductio ad absurdum*, that some well-known historical event, such as the death of Julius Cæsar, never took place. Indeed, all historical events constitute cases where perhaps the strictest reasoning would dictate an attitude of agnosticism, but where for practical purposes each one of us cannot help having some settled conviction, which is so extremely probable that it amounts almost to knowledge.

For practical purposes, then, we may say we believe or know any piece of history to be true if the human evidence on which it rests has been sifted and found to stand the test of historical criticism, and if it does not involve the occurrence of something which for philosophical or other reasons we call extremely improbable.¹ But where an element of improbability is felt, we should be much more inclined to an agnostic attitude, remembering the unreliability of human evidence; or at least subject

¹ Huxley's dictum on this subject was as follows: "The rule of common sense is *prima facie* to trust a witness in all matters, in which neither his self-interest, his passions, his prejudices, nor that love of the marvellous which is inherent to a greater or less degree in mankind, are strongly concerned; and, when they are involved, to require corroborative evidence in exact proportion to the contravention of probability by the thing testified." ("Essays," Vol. V., p. 226.) And he illustrated it with an essay entitled "The Value of Witness to the Miraculous," which, in my opinion, is one of the most important contributions to the subject of psychical research ever made, and which may be summarised in Huxley's own words as follows: "The story of the 'Translation of the Blessed Martyrs Marcellinus and Petrus,' and the other considerations (to which endless additions might have been made from the Fathers and the mediæval writers) set forth in a preceding essay, yield, in my judgment, satisfactory proof that, where the miraculous is concerned, neither considerable intellectual ability, nor undoubted honesty, nor knowledge of the world, nor proved faithfulness as civil historians, nor profound piety, on the part of eye-witnesses and contemporaries, affords any guarantee of the objective truth of their statements, when we know that a firm belief in the miraculous was ingrained in their minds, and was the presupposition of their observations and reasonings." ("Essays," Vol. V., p. 329.)

the evidence to the severest criticism before we say we believe. Thus, as there is nothing improbable about the death of Julius Cæsar, we find little difficulty in believing it on the evidence, preserved by history, of the witnesses who saw it; but as regards the portents which the same witnesses say occurred to indicate his approaching death—which Shakespeare has so dramatically rendered for us—there is much greater difficulty in belief, because an element of improbability is introduced, founded on the fact that within our own experience, and also within that of what I may call "scientific man," portents have never been shown with certainty to occur; and, on the other hand, we know from history that in the time of Julius Cæsar a belief in portents was almost universal, so that the witnesses of his death were biased in this respect.¹

The value of historical evidence at the same time is by no means easy to determine. Thus I myself was satisfied for some years with the answer of a distinguished historian—whom, as an expert historian and as an earnest old-fashioned Christian, I asked about these questions in my search after truth—to the effect that the evidence

¹ Some remarks of Podmore on the subject of ghosts are worth recalling: "If we are justified, then, in our suspicion of the serpent, we are doubly justified in the reluctant hearing which we yield to ghost stories. Man, as has been said by some one, is not naturally a veridical animal. It is not, in fact, an easy thing to tell the truth. It is the most difficult of all arts, and one of the latest acquirements of the most civilised races. There are, in the first place, defects and excesses in narration caused by self-interest, or by the dramatic instinct, the love of telling a good story. But defects of this kind are generally recognised and proportionately easy to guard against. The real danger is more subtle. Not only our memory, but our very acts of perception are shaped by our preconceptions and prejudices. To put it crudely, what we see and what we remember is not what actually happened, but what we think ought to have happened or what was likely to have happened. The retina supplies us with an imperfect photograph, a crude sensation. But this imperfect photograph is not 'perceived' until it has been telegraphed up to higher brain centres, and it is the business of these higher centres to touch up the photograph, to fill in the lacunæ, to select what seem the more salient and notable features, and to colour the whole with the emotion appropriate to the situation. It is likely that in most cases something is added to improve the picture. The result is no longer a photograph, but a finished work of art, which contains at once more and less than the photograph—the original sensation. This process of selection and embellishment may be carried still further in the memory, until at last the finished picture may come to bear no essential resemblance to the original retinal photograph." ("Telepathic Hallucinations," p. 4.)

for certain miracles was as good as that for the death of Julius Cæsar or any other well-known and accepted historical event. But I realise now how his Christian belief biased his opinion as an historian, and that he would have done better to have answered, "the evidence for these miracles is quite as good as that for any other supernatural event recorded in history." For the evidence for any miracle is not as good as that for some natural historical event like the death of Julius Cæsar, because an element of improbability is introduced owing to the fact that within the experience of "scientific man" miracles do not occur. One more illustration will perhaps render clearer my point that there is a great difference between the value of historical evidence about natural and supernatural events. The Spanish historian tells us that when Cortes landed in Mexico with his small, heroic band of followers, he only had 553 soldiers and 110 sailors to conquer at least 100,000 Aztecs. Yet we feel no inherent impossibility in believing that by wily policy combined with heroism he succeeded in conquering the country, although his chance of success appeared very small at first. But when we read that the Spaniards were cheered on to victory by seeing St. James mounted on a war-horse at the head of the Christian squadrons, we feel that it is more probable that this event had origin in the Spaniards' imagination rather than in fact,¹ as, on the one hand, we know that man in mediæval times very commonly believed in the visible presence of heavenly agents during times of stress, and, on the other hand, no satisfactory evidence of an analogous phenomenon has been recorded during the past century, when phenomena have been subjected at the time of their supposed occurrence to more searching and scientific criticism.

I have just used the word "analogous," which leads me to point out the use and abuse of "analogy." In a scientific problem, though a very hopeful line of research

¹ Instances of the miraculous appearance of St. James or other saints are recorded on pp. 136, 392, and 420, of Prescott's "History of the Conquest of Mexico" (1878 edition). One of the appearances is described as follows: "Sinner that I am," exclaims honest Bernal Diaz in a more sceptical vein, "it was not permitted me to see either the one or the other of the Apostles on this occasion" ("Hist. de la Conquista," Cap. 34), to which Prescott adds the following note: "The remark of Bernal Diaz is not to be taken as ironical. His faith in the same vision on subsequent occasions is expressed without demur. In the present case he recognised the rider of the grey horse as a Spanish cavalier, Francisco de Morla."

may be suggested by analogy, yet if analogy is assumed to amount to proof, there is very great probability of one's being led into error. A simple example is the following:

One of the most striking phenomena in physiology is the fact that excision of the pancreas in a mammal is followed by a marked and almost immediate excretion of sugar by the kidneys, a condition known as "pancreatic diabetes." Now, on analogy, it might be assumed that the same thing would be seen in birds. And, as a matter of fact, excision of the pancreas does set up a very similar condition, at any rate in the duck. But the duck's kidney is so far different from the mammalian kidney that it does not excrete the sugar, which consequently accumulates in the blood. Thus, although the degree of hyperglycemia (sugar in the blood) after excision of the pancreas is greater in ducks than in mammals, yet, judging from the degree of glucosuria (sugar in the urine), one might think that excision of the pancreas was not followed by the same disturbance of sugar-consumption in ducks as in mammals.

Here we see that analogy puts one on the right track; but if one does not know all the facts of the case, one is apt to be deceived. The value of the analogical method lies in its suggesting the probable line of finding the truth; and in problems where the phenomena are not capable of repetition, it is a great aid in deciding the probability of the truth on other lines than those of scientific proof. But it is most important to remember that it does not itself rise to the dignity of scientific proof, and that it is a method which, if honestly used, is apt to cut both ways in controversy, as it is often not difficult to get analogies both supporting and controverting the same position. Thus ideas of anthropomorphic gods naturally spring up among savage people on the analogy of human activity, and, similarly, all believers in a personal God are liable to attribute to Him man-like qualities. But with greater knowledge we see that on the analogy of a beetle being quite unable to form a conception of the human mind, so it is quite as probable that the human mind is unable to understand the processes whereby matter originated, and that the whole conception of creator and created is vitiated by the limitations of human intellectual capacity.

Analogy, consequently, is of but little help in discussing supernatural and, still less, extraterrestrial problems, where the conditions may be totally different from any-

thing with which we are acquainted on earth. This is well illustrated in the discussion which of recent years has centred round the question of life on the planet Mars or other planet or star. Popular writers, who are satisfied that the facts of observation are sufficient to prove the existence of Martians, are apt to write as if language and distance were the only difficulties in the way of communication between the Earth and Mars. But, assuming the existence of Martians, it is extremely unlikely that the processes of evolution in a different environment would result in the evolution of a vertebrate identical with man, and, on the other hand, it is possible that living processes can be associated under unknown conditions with other than complex carbon compounds. Thus, by a mistaken use of analogy, we are far too prone to exalt terrestrial conditions to a universal standard. In short, analogy is useful by way of illustration, but useless as a means of proof.

Under the heading "inaccurate reporting" may also be included the errors which arise in the transmission of a story through faulty memory. I have already pointed out how necessary it is to have some independent test of the accuracy of a remembered event in the form of a written and dated document.¹ And in a similar way error is very apt to creep in, if one trusts too much to one's memory in repeating evidence based on other than personal experience. The imaginary "They" is so apt to be quoted as a reliable authority, when one asks for the reference or name of the witness vouching for the truth of some story of the supernatural. This tendency, in conjunction with bias, is the great parent of superstition, and is quite sufficient to account for the spread of any fabulous idea; for instance, the fatal properties of the number thirteen. How this particular superstition was spread by the biographer of Sir John Everett Millais was

¹ Mr. Innes showed that in the 702 cases quoted by Gurney, Myers and Podmore in their book entitled "Phantasms of the Living," there was not a *single* one "in which the indefatigable editors have seen or ascertained a letter or document issued at the time by the narrator, so as to prove his story to be true," although there were more than 20 cases in which documentary evidence was alleged to have been issued at the time and at least one hundred cases in which documentary corroboration could reasonably be demanded. Further, he showed that in nine cases the story was weakened rather than strengthened by the documentary evidence, which in these cases had been forthcoming and seen by the editors of "Phantasms of the Living." (See "Where are the Letters?" *Nineteenth Century*, Vol. XXII, pp. 185-187.)

so well shown up by a correspondent of the *Spectator*,¹ that I cannot refrain from quoting the facts as a typical illustration of my point.

In August 1885 Sir John Everett Millais was entertaining a house-party at Birnam Hall, his Scottish home, and among the guests were Matthew Arnold, a Mr. Edgar Dawson, a Mr. E. S., and a Miss G. S. One day they discovered that the party at table was exactly thirteen, at which information Miss G. S. was greatly alarmed, and exclaimed in consternation, "I fear that some calamity will happen."

Before the end of dinner, the conversation drifted back inevitably to the fatal number, and Matthew Arnold is said to have exclaimed: "And now, Miss S., the idea is that whoever leaves the table first will die within a year, so, with the permission of the ladies, we will cheat the fates for once. I and these fine strong lads (pointing to Edgar Dawson and E. S.) will all rise together, and I think our united constitutions will be able to withstand the assault of the Reaper."

Matthew Arnold, according to the story, died six months afterwards, and a little later E. S. was found in bed, killed by a revolver, which lay empty beside him. In the meantime, Edgar Dawson had gone out to Australia, and after the two sudden deaths there was naturally anxiety as to what should happen to him within the fatal year. On February 18th, 1886, he left Melbourne in the steamer *Quetta*. The steamer went down off the coast of New Guinea, and Dawson was drowned. "And now," writes the biographer, "what shall be said to these things?"

That is the famous story which the following letter of a correspondent of the *Spectator* tears to pieces by a cold examination of the alleged facts.

"The facts! The party is said to have taken place in August 1885. Accordingly, Arnold must have died in March 1886, and the *Quetta* must have gone down about the same time. Every one knows that Matthew Arnold died in April 1888, and I have just come across a reference to the wreck of the *Quetta*, by one who lost several relatives in the wreck, as

¹ The letter in the *Spectator* occurs in March 7th, 1908, p. 373, while the original story of the dinner-party will be found in "Life and Letters of Sir John Everett Millais," by J. G. Millais, Vol. II., p. 182. (1899 ed., Methuen.)

1890. What could a serious biographer have been about when he allowed his memory to trick him into penning such a piece of circumstantial nonsense? In view of these glaring discrepancies, it is allowable to discredit the whole story, however it may have formed itself in the writer's mind. Arnold knew from about 1868 that his life was precarious, and that his end was likely to be very sudden. Is it likely that, even in jest, he ever uttered such a speech as is here put into his mouth? "

The writer concludes with the observation that, with the real facts before them, many will not willingly give up the old story of Matthew Arnold and the fatal number thirteen.

The moral of this incident is the necessity of verifying all the facts of a story before quoting it by looking up the printed records of the facts. At the same time, a warning is necessary to guard against the very general tendency of regarding anything in print as accurate. How easily error creeps into even a standard publication was very well illustrated by another correspondence which took place in the *Daily Graphic* in 1905. As it is rather a good example of supposed telepathy, and illustrates the need for accuracy on the part of the sceptical critic, I hope the following account will interest the reader:

Letter from Lady Florence Dixie about the death of Lord Francis Douglas in the *Daily Graphic*, September 9th, 1905:

"SIR,

"I do not pretend to account for the following incident, but only know and vouch for the fact that it took place. When I was a very little child, my second brother (Lord Francis Douglas), then barely eighteen years of age, was killed in the first successful ascent of the Matterhorn. The accident took place on July 14th, my mother's birthday. That night my mother and myself were in London, passing through it *en route* for home. We stayed there one night to break the journey, and my brother was expected back early to take part in the festivities arranged in Scotland for the coming-of-age of my eldest brother Queensberry.

"My mother and myself occupied one room that

night and went to bed early. There was no apprehension about my brother in Switzerland. About 10.30 p.m. the door of our bedroom opened, and my mother's maid appeared. Her name was Emily Whiting; but we both called her by the pet name of 'Bengy,' whereas my brother Francis always called her Whiting. She came in and asked my mother if she had called her, and on being replied to in the negative retired. About eleven o'clock she returned again, declaring that her name had been distinctly called, but was once more sent away. A third time (it was nearly twelve o'clock) she came back, assuring my mother that a voice had called her, and each time by the name of Whiting. She was certain the voice was near.

"Annoyed at this frequent disturbance, my mother told her to go back to bed, and not to come again. Yet a fourth time she reappeared, and this time in a very agitated state. She declared that she had had a dream or vision, in which she saw my brother Francis lying on a rocky ledge on a great precipice, terribly wounded. He was dragging himself along. This dream seemed to startle my mother; but she tried to soothe the maid, and got her to go back to bed.

"A few days later news came of the terrible accident on the Matterhorn, in which my brother, Mr. Hudson, Mr. Hadow, and Croz, the guide, were killed, Mr. Whymper and two other guides escaping. Of the four killed, Mr. Hudson's, Mr. Hadow's, and Croz's remains were found, but no trace of my brother has ever been discovered. The incident I have related is an indelible reminiscence of my childhood. The accident took place on July 14th, the very day of that night to which this account refers.

"Yours faithfully,

"FLORENCE DIXIE."

This letter led to the publication on September 13th, 1905, of a letter from J. R. C., headed, "The Importance of being Accurate." It was as follows:

"SIR,

"Lady Florence Dixie says that on the occasion of the coincidence which she relates in your issue of to-day: (1) Her brother, Lord Francis, was eighteen. (2) She and her mother were on their

way to Scotland (apparently) to attend the festivities in connection with the coming-of-age of her brother, Lord Queensberry. (3) The events took place on July 14th, 1869. The last date is undoubtedly that on which Lord Francis Douglas was killed. But on that date (1) Lord Francis Douglas was twenty-two, not eighteen, having been born on February 8th, 1847. (2) Lord Queensberry was nearly twenty-four, having come of age on July 20th, 1865.

"None of Lady Florence's brothers came of age in 1869, and the above facts show that several of the circumstantial details of the story are incorrect.

"On the other hand, if the incident happened in the year when Lord Queensberry came of age, Lord Francis was eighteen; but that was four years before the accident on the Matterhorn, and the connection between the phantom voice and the death of Lord Francis fails."

Next day (September 14th, 1905) the *Daily Graphic* contained an editorial note as follows:

"Lord Archibald Douglas now telegraphs to us from Annan: 'J. R. C. is mistaken. The date on which my brother Francis was killed was July 14th, 1865.' The late Marquess of Queensberry came of age six days later, and J. R. C.'s criticism is therefore pointless."

The correspondence about this particular incident was closed by a final letter from J. R. C., apologising for his mistake and explaining how it arose. The letter, published on September 16th, 1905, was headed "An Apology," and ran as follows:

"SIR,

"Will you permit me to apologise to Lady Florence Dixie? She did not mention the year in her letter, and I looked up a Peerage—an old one—to verify the dates. That Peerage—I have it before me as I write—has against the name of Lord Francis Douglas the words, 'Killed July 14th, 1869, in descending the Matterhorn.' That date is clearly wrong, and Lady Florence's story remains unshaken, and is corroborated by her details."

The last point requiring consideration is the character of witnesses. I have already pointed out how the

evidence and judgment of trained observers must carry more weight than those of non-expert witnesses, so that in problems dealing with the so-called "physical phenomena" of spiritualism, a trained conjurer is probably the best type of witness.¹ But apart from training, a certain weight must be given to moral integrity. In a scientific case, just as much as in a court of law, doubt is apt to attach itself to the evidence of a known liar. Now, in connection with spiritualism, clairvoyance and spirit-photography, etc., so many mediums and professional occultists have been shown up as having no regard for truth, that the whole class of professional mediums is rightly and not unnaturally covered with suspicion. On the other hand, the fact that a witness is eminently respectable and trustworthy does not guarantee the accuracy of his evidence.² Consequently, when various phenomena are stated to have occurred on the authoritative guarantee of observers like Sir W. Crookes, F.R.S., the late F. W. Myers, Sir Oliver Lodge, F.R.S., Professor Richet, and others, and are quoted as conclusive evidence in favour of the supernatural—(I shall myself, in the next chapter, quote one or two instances of "Psychic Force" as observed by most trustworthy and eminent scientific men)—we must always remember that moral integrity, important as it is, cannot take the place of specialised training. As an example of what I mean, I cannot do better than quote the case of W. T. Stead, the well-known journalist, whose integrity is above suspicion, but who has never had, as far as I am aware,

¹ Conjurers, however, cannot always explain how psychic phenomena are produced, and may themselves be taken in. Thus Bellachini, the well-known conjurer at Berlin, made a declaration before a notary in December, 1877, that he regarded it as impossible to explain the phenomena associated with the medium Slade by prestidigitation of any kind. And yet, not only was Slade exposed by Professor Lankester, but also slate-writing phenomena, even more wonderful than those of Slade, were produced by an amateur conjurer, Mr. S. J. Davey, after much practice. For other instances where conjurers have been ready to believe in "psychic or nerve force," see "Modern Spiritualism," Vol. II., p. 204.

² The attitude of Mr. Theobald, author of "Spirit Workers in the Home Circle," towards criticism is typical of spiritualists. For after Messrs. Podmore and Hughes, in a series of letters to *Light* during 1884, had conclusively proved that he had been the victim of fraud practised by his daughter and cook, he wrote: "Such phenomena can never be received until faith in accredited narrators and reliance on the commonplace integrity of ordinarily reputable people is admitted as one of the canons of scientific attestation." (See "Modern Spiritualism," Vol. II., pp. 91-94.)

any adequate scientific training fitting him for undertaking the difficult problems of psychical research. His training has been rather that fitting him for successful journalistic work, in which ability to recognise what will interest the public, rather than to detect the scientific accuracy of evidence, must be developed. Now, in an article in the *Fortnightly Review*, Vol. XCI., p. 56, 1909, entitled "Do the Dead Return?" he gives several experiences of his own, and, among others, an account of how he once paid a visit to a photographer who had the uncanny power of seeing spirits, and in whose hands even a photographic plate could be made to take an impression of an unsubstantial shadow from another world. "I had hardly taken my seat," Mr. Stead writes, "before the old man said: 'I had a great fright the other day. An old Boer came into the studio carrying a gun. He fairly frightened me, so I said to him: "Go away. I don't like guns." And he went away. Now he's back again. He came in with you. He has not got his gun now, and he does not look so fierce. Shall we let him stay?' 'By all means,' I replied. 'Do you think you could get his photograph?' 'I don't know,' said the man, 'I can try.'" Mr. Stead sat down in front of the camera, and an exposure was made.¹ Before the plate was removed, the photographer, at Mr. Stead's request, asked the spirit his name, or rather the photographer appeared to put a mental question and listen for a reply. Then he said: "He says his name is Piet Botha." Mr. Stead continues: "When he developed the plate, there was seen standing behind me a hirsute, tall, stalwart man, who might have been a Boer or a Moujik. I said nothing, but waited till the war came to an end and General Botha came to London. I sent the photograph to him by Mr. Fischer, who was Prime Minister of the old Orange Free State." As a result, a Boer gentleman of the name of Wessels called on Mr. Stead shortly afterwards, and wanted to know all about the source of the photograph, and was almost incredulous on hearing Stead's story. The account continues: "'Well,' I replied, 'I have told you how I got it, and you need not believe me if you don't like. But why are you so excited about it?'"

¹ See Appendix A, where the evidence for the genuineness of spirit-photography is considered at length. The seventh chapter of the second volume of Podmore's "Modern Spiritualism" is given up to the subject of spirit-photography, where the origin and history of this branch of Spiritualism is fully described.

'Why,' said he (Mr. Wessels), 'because that man was a near relative of mine. I have got his portrait hanging up in my house at home.' 'Really,' I said. 'Is he dead?' 'He was the first Boer Commandant killed in the siege of Kimberley.' 'And what was his name?' 'Pietrus Johannes Botha,' he replied, 'but we always called him Piet Botha for short.'

"I still have the portrait in my possession," adds Mr. Stead. "It has been subsequently identified by two other Free Staters, who knew Piet Botha well. This at least is not a case which telepathy can explain. Nor will the hypothesis of fraud hold water. It was the merest accident that I asked the photographer to see if the spirit would give his name. No one in England, so far as I have been able to ascertain, knew that any Piet Botha ever existed."

It is this last statement which I want the reader to notice as typically illustrating how mistaken inferences or assumptions are the basis of error in psychical research. For, as a matter of fact, a portrait of Pietrus Botha was given in the weekly *Graphic* for November 4th, 1899, p. 631, with the following description: "Portrait of the late Commandant Botha, killed near Kimberley. Commandant Botha is a Boer General, who was killed in the engagement with Colonel Kekewich's forces during the successful sortie from Kimberley."

Another example of the same type of statement, based on inadequate proof, is the assertion of the writer of articles on "Occultism and Common-Sense" in the *Westminster Gazette* for November 21st, 1907, where he is discussing the clairvoyant powers of Mrs. Piper, that: "One could quote case after case in the Society's reports; but in all the time Mrs. Piper has been under such rigid scrutiny not one suspicious instance, or one pointing to normal acquisition of facts, has been discovered." Yet in the same article the writer himself reproduces a letter from Professor Shaler to Professor James—given by me in Chapter IV—in which Professor Shaler mentions some "distinctly suspicious features," and in addition to this there have been several suspicious features about Mrs. Piper; as, for instance, the fact that when Professor Bowditch, the physiologist, went to see her in 1886, he was told a number of facts which applied quite well to Dr. Henry I. Bowditch, his uncle, but not to himself.¹

¹ See *Proc. S.P.R.*, Vol. VIII., p. 7. The genuineness of Mrs. Piper is discussed in Chapter IV.

Thus we see how little weight need be attached to the statement of an upright man when he guarantees that an explanation of fraud is "impossible." That word is the bugbear of psychical literature; and whenever I come across it, it at once makes me suspect that the writer subconsciously had his doubts and tried to quiet them by the use of this word. Thus a "Manchester merchant of high respectability" writes a letter to the *Echo* of June 8th, 1871, describing a séance at which he witnessed the sudden appearance on the séance-table of Mrs. Guppy, "one of the biggest women of London," who pretended to have been brought there under the control of spirits from her home in Highbury about three miles away in a little over two minutes. The letter ends: "The possibility of her being concealed in the room is as absurd as the idea of her acting in collusion with the media." It is sufficient commentary on this statement to point out that though the table and sitters were in a locked room, there was complete darkness, the séance took place at the house of two professional mediums, Messrs. Herne and Williams, and that Mrs. Guppy herself not only practised physical mediumship from an early age, but also worked with the professional mediums of her time, many of whom were exposed.¹

An even better example is the account given by Horace

¹ As Miss Nichol, before she married Mr. Guppy, she lived with Mrs. Sims, the sister of Dr. A. R. Wallace, F.R.S., who regarded some of her phenomena as "more conclusive than the flotation of Mr. Home." And yet, in his description of one séance at which "spirit-flowers" were produced, we read: "I rose up to turn on the gas, which was down to a blue point, when, just as my hand was reaching it, the medium who was close to me cried out and started, saying that something cold and wet was thrown on her face. This caused her to tremble violently, and I took her hand to calm her, and it then struck me this was done to prevent me lighting the gas." (*Spiritual Magazine*, 1867, p. 51.) Podmore points out that her "power was stronger the fewer the witnesses, and strongest of all in an empty room." He also explains how she was never actually exposed because of social restraints, and because any tests that were imposed "were carried out by persons whose training and temper would have rendered even better devised precautions of little value." ("Modern Spiritualism," Vol. II., p. 67.)

Williams was exposed with a medium called Rita by spiritualists at Amsterdam in 1878. On him were found "a dirty black beard with brown silk ribbon, and several yards of very dirty muslin—the simple ingredients which represented the spiritual make-up of the repentant pirate John King—together with another bottle of phosphorised oil, a bottle of scent, and a few minor properties." ("Modern Spiritualism," Vol. II., p. 111.)

Greeley in the *New York Tribune* (August 1850), of the phenomena presented by the Fox girls, who were more or less the inventors of the rapping-system at séances, and who not only were exposed, but also confessed subsequently that they made the noises by natural means. (See "Modern Spiritualism," Vol. I., pp. 184-185.)

"Mrs. Fox and her three daughters left our city yesterday on their return to Rochester after a stay here of some weeks, during which they have freely subjected the mysterious influence, by which they seem to be accompanied, to every reasonable test, and to the keen and critical scrutiny of the hundreds who have chosen to visit them, or whom they have been invited to visit. The rooms which they occupied at the hotel have been repeatedly searched and scrutinised; they have been taken without an hour's notice into houses they had never before entered. They have been all unconsciously placed on a glass surface concealed under the carpet in order to interrupt electric vibrations; they have been disrobed by a committee of ladies appointed without notice, and insisting that neither of them should leave the room until the investigation had been made, etc., etc.; yet we believe no one to this moment pretends that he has detected either of them in producing or causing the rappings; nor do we think any of their contemnners has invented a plausible theory to account for the production of these sounds, nor the singular intelligence which (certainly at times) has seemed to be manifested through them. . . . Whatever may be the origin or the cause of the rappings, the ladies in whose presence they occur do not make them. We tested this thoroughly, and to our entire satisfaction." (Quoted in the "Spiritual Philosopher," Vol. I., p. 39.)

Similarly, it is equally futile for even eminent psychical researchers to guarantee the integrity of psychic subjects or sensitives—a better expression in this connection than the objectionable word "medium." The Rev. Stainton Moses, for instance, was a clergyman and M.A. of Oxford, and for nearly eighteen years English master in University College School. Consequently, references to the phenomena exhibited by him are repeatedly coupled with some such commentary as the following paragraph from "Occultism and Common-Sense," p. 216: "It is in-

conceivable that such a man as Stainton Moses—a hard-working parish priest and a respected schoolmaster—should deliberately have entered upon a course of trickery for the mere pleasure of mystifying a small circle of acquaintances. The whole course of his previous life, his apparently sincere religious feeling, all combine to contradict such a supposition. Neither is it credible that such a petty swindler would have carried out his deceptions to the end and have left behind fresh problems, the elucidation of which his eyes could never behold.” How fallacious such an attitude is may be gathered from the following summary of his séances as given by Podmore (“Modern Spiritualism,” Vol. II., p. 286):

“Such in brief were the works of the Rev. William Stainton Moses. It remains to construct, if we can, an intelligible conception of the man. It seems to me clear, as I have tried to show, that there is nothing in the nature of either the physical or the mental phenomena described to require the operation of any supernormal agency. And in default of any sufficient evidence from other sources that physical manifestations of this kind are ever due to such hypothetical agencies, it seems reasonable to conclude that all the marvels reported at the séances were, in fact, produced by the medium’s own hands: that it was he who tilted the table and produced the raps, that the scents, the seed pearls, and the Parian statuettes were brought into the room in his pockets; and that the spirit lights were, in fact, nothing more than bottles of phosphorised oil. Nor would the feats described have required any special skill on the medium’s part. With the exception of the spirit lights—the preparation of which in the circle as constituted probably involved little risk—the things done are all such as tricky children and novices generally have practised for generations past on their credulous friends. I doubt if this Moses could have competed with Jannes and Jambres.”

In his “Newer Spiritualism,” p. 162, Podmore also writes:

“It is not merely possible, then, that a trance medium will, when opportunity serves, avail himself of any normal means to achieve the end aimed at by the entranced intelligence; historical precedents

indicate that it is probable that he will do so. And the lives of Stainton Moses and $X + Y = Z$ (the Rev. C. B. Sanders) show us that an automatist may habitually employ what in other circumstances would be called dishonest methods in order to impress his friends with a belief in his marvellous powers; may all the time escape detection in making the necessary preparations; and may thus continue to enjoy, and possibly to deserve, an unblemished reputation in his normal life."¹

So important is the subject that I must give some more examples of the use of the words "impossible," "inconceivable" and the like. In the next chapter will be described at some length the experiences of Professor Richet with a Mademoiselle Marthe B., in whose presence the spirit of an Algerian gentleman, named Bien Boa, was able to materialise; but, strangely enough, his features were exactly like those of Mademoiselle B., if she had attached a coarse moustache to her upper lip. There are other features of the case strongly suggestive of fraud, and yet Professor Richet bases his belief in the phenomena very largely on the fact that "to suppose that Marthe, the daughter of an officer, and the fiancée of the General's son, should concert with a negress and a palmist to practise an odious deception on General and Madame Noel for twelve months, is absurd. For it could not be a matter of unconscious fraud. . . . Such a complot so skilfully carried on would be impossible."² ("Annals of Psychical Science," Vol. II., p. 234, 1905.)

¹ In Appendix B is given another quotation from Podmore, showing how easy it was for Moses to escape detection, and describing an occasion on which he spilt a bottle of phosphorised oil, which had been masquerading as a "spirit-light."

² A particularly painful exposure of a medium called Miss Showers occurred at the house of Serjeant Cox on April 2nd, 1874. For Miss Showers was the daughter of a general; but this did not stop her from collaborating with their servant to mystify her widowed mother, with whom she was then living at Teignmouth. From moving tables and performing various practical jokes she developed into a regular medium, who exhibited materialisations at her séances. At the séance in question a spirit appeared as usual in the aperture of the materialisation cabinet, the curtains of which Serjeant Cox's daughter tried to open wider. In the spirit's struggles to prevent this, the head-dress fell off and revealed the spirit's head as that of Miss Showers. Serjeant Cox's own explanation was that the medium was entranced and unconscious of her impersonation of the spirit. But he could not explain the awkward fact that Miss Showers had introduced into the cabinet some white

Of an allied nature is the statement made by Sir Oliver Lodge, prefacing his description of some experiments in thought transference with two Austrian ladies, of whose *bona fides* he was satisfied, although, as he says, they were "adepts" at the so-called "willing-game," which is admittedly done by trickery or by muscle-reading.

For after saying: "Contact seemed essential to the transfer. Very slight contact was sufficient, for instance, through the backs of the knuckles; but directly the hands were separated, even though but a quarter of an inch, the phenomena ceased—re-appearing again directly contact was established," and also: "It is perfectly obvious how strongly this dependence on contact suggests the idea of a code; and I have to admit at once that this flaw prevents this series of observations from having any value as a test case, or as establishing *de novo* the existence of the genuine power," he thinks the experiments are worth recording, because—to finish the last paragraph quoted:

"My record only appeals to those who on other grounds have accepted the general possibility of thought transference, and who therefore need not feel unduly strained when asked to credit my assertion that unfair practices were extremely unlikely; and that, apart from this moral conviction, there was a sufficient amount of internal evidence derived from the facts themselves to satisfy me that no code was used. The internal evidence of which I was thinking was: (1) the occasionally successful reproduction of nameless drawings; (2) the occasional failure to get any clue to an object or drawing with a perfectly simple and easily telegraphed name; (3) the speed with which the guesses were often made." ("The Survival of Man," p. 61.)

drapery with which to clothe the spirit form. (See "Modern Spiritualism," Vol. II., p. 104.)

A good example of an action apparently without an adequate motive was furnished by Lady Florence Dixie, when she asserted that she had been attacked by two ruffians, dressed up as women, outside a wood near Windsor. The subsequent investigations of the police led them to believe that she had fabricated the whole story. This fact should be borne in mind in estimating the value of the story already given in the text *à propos* of the death of Lord Francis Douglas. (See *The Times* for March 19th, 1883, p. 6, and for March 30th, p. 9, as well as intermediate numbers.)

Other examples are the testimonies given by scientific men to Eusapia Palladino. Thus Podmore says *à propos* of sittings she had with Sir Oliver Lodge, F. W. Myers, and Professor Richet at the latter's house in the Île Roupard in 1894 :

"Dr. Hodgson proceeded to analyse the descriptions given of the chief feats, and suggested explanations of some which had puzzled the investigators at the time. In his view all that had been described could be accounted for on the assumption that Eusapia could get a hand or foot free.

"F. W. H. Myers, Sir O. Lodge, and Professor Richet each replied at length to Hodgson's criticisms. Each severally mentioned that they were fully aware of the danger referred to, and that, in fact, though it had not been thought necessary to make continual statements to that effect in the notes, the hands and feet were so held as to make fraud of the kind suggested impossible. Richet's assertions on this point were the most emphatic, and, as coming from an investigator who had himself been the first to draw attention to the unsatisfactory nature of the control usually permitted, are no doubt entitled to considerable weight. He pointed out that he had previously attended séances with Eusapia in Milan and Rome, and that forty séances had been held under his direction at Carqueiranne and in the Île Roupard, extending over a period of three months. . . . And really to impute negligence on this point to Richet and his fellow investigators would almost seem equivalent to imputing imbecility." ("The Newer Spiritualism," p. 96.)

Yet next year at Cambridge Eusapia was detected in fraud at Myers's house in the very way suggested by Dr. Hodgson. And Myers, in describing the results of his sittings, said : "I cannot doubt that we observed much conscious and deliberate fraud of a kind which must have needed long practice to bring it to its present level of skill. Nor can I find any excuse for her fraud (assuming that such excuse would be valid) in the attitude of mind of the persons, several of them distinguished in the world of science, who assisted in this inquiry. Their attitude was a fair and open one; in all cases they showed patience, and in several cases the impression first made on their minds was distinctly

favourable. With growing experience, however, and careful observation of the precise conditions permitted or refused to us, the existence of some fraud became clear; and fraud was attempted when the tests were as good as we were allowed to make them, quite as indisputably as on the few occasions when our holding was intentionally left inadequate in order to trace more exactly the *modus operandi*. Moreover, the fraud occurred both in the medium's waking state and during her real or alleged trance. I do not think there is adequate reason to suppose that any of the phenomena at Cambridge were genuine." (*Journal S.P.R.*, Vol. VII., p. 133.)

This illustration is now best completed by a further quotation from Podmore :

"The effect of this experience was to weaken, though not wholly to destroy, the impression produced on Myers by the phenomena witnessed in the preceding summer. Sir Oliver Lodge retained his conviction unshaken, and so did Richet and the other Continental investigators. A few years later, after witnessing some more of Eusapia's performances in Paris, Myers returned to his original allegiance, and formally avowed his renewed belief in the supernatural character of Eusapia's mediumship."¹

("The Newer Spiritualism," p. 98.)

But it may be said : "Is no reliance to be placed on the opinion of scientific authorities? Do not names such as those of Crookes, Lodge, Barrett, and Wallace in England, and abroad of Richet, Zöllner, Maxwell, d'Arsonval, and Lombroso, guarantee accuracy of statement and a cold, critical, scientific attitude in the investigation of these problems?" The answer to this question is sufficiently given in the account of a séance with the medium Florence Cook (when a spirit form called Katie King appeared), which Sir W. Crookes wrote in the following words :

"I pass on to a séance held last night at Hackney. Katie never appeared to greater perfection, and for nearly two hours she walked about the room, conversing familiarly with those present. On several occasions she took my arm when walking, and the impression conveyed to my mind that it was a living woman by my side, instead of a visitor from the other

¹ See *Journal S.P.R.*, March 1899, pp. 34, 35, and a letter from Myers to *Light*, February 18th, 1899.

world, was so strong that the temptation to repeat a certain celebrated experiment became almost irresistible. [This refers to an occasion on which a sitter had embraced a "spirit."] Feeling, however, that if I had not a spirit I had at all events a lady close to me, I asked her permission to clasp her in my arms, so as to be able to verify the interesting observations which a bold experimentalist has recently somewhat verbosely recorded. Permission was graciously given, and I accordingly did—well, as any gentleman would do under the circumstances."¹

Could one want a better example of an unscientific attitude in a scientific investigator? The fact of the matter is that scientific men, who are accustomed to accurate laboratory conditions and instruments which do not lie or give rise to error—at any rate consciously—are no match for the subtle degrees of deception practised by media like Home, Moses, and Eusapia. Because the latter appear in their daily intercourse to be reliable, honest persons, the former cannot admit of their being on other occasions the authors of fraud. The soul of truthfulness themselves, they are quite unaware how impossible it is to postulate that anything done by that complex living mechanism, man, is absurd or inconceivable.² On the other hand, they are somewhat to

¹ There is no doubt that at séances on March 29th and May 21st, 1871, the figure of "Katie" was not that of the medium Miss Cook; but these two séances took place in Miss Cook's own home in Hackney on her own invitation, in order to afford to Sir W. Crookes a final proof of materialisation, as up till then, in séances held at Sir W. Crookes's house or elsewhere, "Katie" had never indisputably been seen simultaneously with the medium, and in the photographs of "Katie" it had been remarked that there was an unmistakable likeness to Miss Cook herself. Further, at these two séances the materialisation cabinet, where Sir W. Crookes saw two living figures together, was the medium's own bedroom. It is also pertinent to point out that Miss Cook was exposed at the beginning of her career by a Mr. William Hipp, and a second time on December 9th, 1873, by Mr. Volckman (who afterwards married Mrs. Guppy), and a third time, at the end of her career in January, 1880, when she had become Mrs. Corner.

The rest of Sir W. Crookes's description of the séance at Hackney is given in Appendix C.

² The reader, interested in knowing of what apparently sane human beings are capable, should read Podmore's account of how the American spiritualist leader, Spear, and his disciples constructed a machine of copper and zinc, the motive power of which was to be an indwelling spiritual principle; and how a respectable married lady endured pangs of parturition for two hours, followed for some

blame when they publish observations, bearing the imprimatur of their great names and so likely to bias the public, which do not conform to their own standards of scientific proof. Thus, Sir W. Crookes showed his appreciation of the necessity for a record of observations independent of human fallibility, when he wrote in his "Researches in Spiritualism," p. 6 :

"The Spiritualist tells of rooms and houses being shaken even to injury by superhuman power. The man of science merely asks for a pendulum to be set vibrating when it is in a glass case and supported on solid masonry.

"The Spiritualist tells of heavy articles of furniture moving from one room to another without human agency. But the man of science has made instruments which will divide an inch into a million parts, and he is justified in doubting the accuracy of the former observations if the same force is powerless to move the index of his instrument one poor degree.

"The Spiritualist tells of flowers with the fresh dew on them, of fruit, and living objects being carried through closed windows, and even solid brick walls. The scientific investigator naturally asks that an additional weight (if it be only the thousandth part of a grain) be deposited on one pan of his balance when the case is locked, and the chemist asks for the thousandth of a grain of arsenic to be carried through the sides of a glass tube in which pure water is hermetically sealed."

weeks by a process analogous to that of nursing, by which it was claimed that the life of the "new-born child," the "physical Saviour" of the race, was cherished and sustained. ("Modern Spiritualism," Vol. I., p. 298.)

On the subject of fraudulent mediums, Podmore makes some excellent observations, from which I extract the following: "It seems not unreasonable to conclude therefore that mediums . . . have certain common characteristics . . . and that all alike, again in accordance with the spiritualist contention, may be to some extent unconscious of their actions, and therefore not fully responsible for them. In modern terminology the medium, whether 'physical' or 'impressionist,' is probably a person of unstable nervous equilibrium, in whom the control normally exercised by the higher brain-centres is liable on slight provocation to be abrogated, leaving the organism, as in dream or somnambulism, to the guidance of impulses, which, in a state of unimpaired consciousness, would have been suppressed before they could have resulted in action." ("Modern Spiritualism," Vol. II., p. 76.)

And yet these conditions were not fulfilled in his experiments with Home and a balance, as a result of which he felt able to announce in the *Quarterly Journal of Science* (July 1871) that he had succeeded in experimentally demonstrating the existence of a hitherto unknown force and had measured the effects produced. On the contrary, as Podmore says, "we are expressly told that all present guarded Home's feet and hands. It is pertinent to point out that a duty for which the whole company were collectively responsible, may well at times have been intermitted. Moreover, Dr. Huggins and Mr. Crookes had to watch the balance also, and Mr. Crookes had to take notes." In fact, the defect of these and nearly all psychical experiments is the absence of exactly that element of proof for which I showed the necessity in the last chapter—namely, the repetition of experiments under approximately identical conditions. For in these same experiments with Home and a balance Sir W. Crookes himself admits this weakness, when he writes: "The experiments I have tried have been very numerous, but owing to our imperfect knowledge of the conditions which favour or oppose the manifestation of this force, to the apparently capricious manner in which it is exerted, and to the fact that Mr. Home himself is subject to unaccountable ebbs and flows of the force, it has but seldom happened that a result obtained on one occasion could be subsequently confirmed and tested with apparatus specially contrived for the purpose."¹

¹ Podmore's commentary on this case is as follows: "The real significance of this statement is that Home—a practised conjurer, as we are entitled to assume—was in a position to dictate the conditions of the experiment. By the simple device of doing nothing when the conditions were unfavourable, he could insure that the light (gas in the present instance) was such and so placed, the apparatus, so contrived, and the sitters so disposed, as to suit his purpose, and that, in the actual experiment, the attention of the investigators would necessarily be concentrated on the wrong points." (*Modern Spiritualism*, Vol. II., p. 240.) However, in suggesting that Home was a clever trickster, it must be admitted that he was never exposed, except on a doubtful occasion in 1855 (*Journal S.P.R.*, July 1889), for which fact Podmore accounts as follows: "Mainly, no doubt, it was due to Home's peculiar position as a non-professional medium, to the fact that his sitters were, in a sense, his guests, and that he himself in effect selected those before whom he would consent to perform. Again, we cannot exclude the possibility that there were cases in which imposture was actually detected by persons who refrained, out of consideration for the feel-

The clue to the mistakes made by scientific men in experiments like the above is clearly given by a sentence in Myers's report of his experiments with Eusapia, already quoted—namely, "fraud was attempted when the tests were as good *as we were allowed to make them.*" The italics are mine; for these words indicate that where the conditions of an experiment are dictated, the training of a conjurer in addition to that of a laboratory experimentalist is required.¹ Further, when a number of men take part in a psychical research and are making observations in common, not only are they likely, as Podmore pointed out, to relax their individual vigilance, but also they create an atmosphere of good faith, and unconsciously suggest to each other that they are observing genuine phenomena. For, as M. Gustave le Bon has proved with illustrations from the epidemic delusions of history, a collective hallucination very easily spreads throughout a crowd, which is always less critical and more credulous than the average of the individuals composing it.²

ings of their friends, or from the fear of ridicule, from making their discovery public" (*loc. cit.*, Vol. II., p. 231). The ebb and flow of Home's 'psychic force' reminds one of Mrs. de Morgan's servant, Jane, of whom we are told that her powers were extremely uncertain, so that with most persons she failed altogether, although with her credulous mistress she was generally successful. (See "From Matter to Spirit," pp. 19-22.) Podmore sarcastically calls it "another instance of exclusiveness"!

¹ Perhaps the most interesting aspect of Spiritualism is not so much the difficulty of explaining the phenomena recorded, as the credulity of distinguished and clever men. Among Fellows of the Royal Society, in addition to Wallace, Crookes, and Lodge already referred to, may be mentioned Major Moor and Dr. Clanny, both of whom, in recording psychical phenomena which they had investigated, almost boast that they took no precautions against trickery. (See "Modern Spiritualism," Vol. I., pp. 29-32.) Lastly, I must not omit the name of that most distinguished mathematician, Professor de Morgan, who pinned his faith on the maxim "Now things which have happened are manifestly possible; for if they had been impossible, they would not have happened" (*τὰ δὲ γεγόμενα φανερόν ἐστι δυνατόν· οὐ γὰρ ἐγένετο, εἰ ἦν ἀδύνατον*, Aristotle). But the effect of this maxim is rather spoilt when Podmore tells us "in the single illustration of the practical working of his principle which he (Professor de Morgan) allows himself to give, it is unfortunately obvious that the homilist has been gulled by a clever adventuress (Mrs. Hayden)" (*loc. cit.*, Vol. II., p. 145). See also Appendix D.

² See Gustave Le Bon's "Psychologie des Foules," Paris, 1895. He quotes a good illustration of collective hallucination in the following incident. A French frigate, *La Belle Poule*, was searching for a missing consort, when the whole crew in full daylight saw a raft

The conclusions, then, to which we have come in this chapter are, *first*: that the only satisfactory type of witness is one who combines integrity with expert knowledge, and who never makes assertions based on mere assumption and unverified inference; *second*, that all assertions should be verifiable by documentary evidence made, if possible, at the time of the experience; *third*, that the respectability neither of the witnesses nor of the psychic subject of an experiment should influence us to any great extent, for, to quote G. H. Lewes's words *à propos* of table-turning, "in the delicate and difficult question of science *paroles d'honneur* have a quite inappreciable weight. We may, therefore, set aside the respectability of the witnesses, and, with full confidence in their integrity, estimate the real value of their assertions, which amounts to this: they were not conscious of pushing." ¹

and boats crowded with men. But on approaching the object, it turned out to be merely some floating branches of trees. Other examples of collective hallucinations are given in "Modern Spiritualism," Vol. II., p. 252, and an excellent recent case in "The Newer Spiritualism," pp. 83, 84. The reader interested in the subject would do well to read articles in the *Revue Scientifique*, by M. Le Bon (March 26th, and April 2nd, 1910). In the next chapter will also be found an excellent example from New Zealand, which I have quoted to illustrate the mental atmosphere of a table-turning séance. The narrator of the incident, a cold-blooded, reckless type of man, tells how the presence of a crowd of excited and credulous Maoris made him half ready to give way to belief in the genuineness of what he knew to be a piece of imposture.

¹ "Prolegomena," § 22.

CHAPTER III

SPIRITUALISM, OCCULTISM, PSYCHIC FORCE, ETC.

If human evidence in the historical as opposed to the scientific use of the word were reliable, there could be no doubt of the truth of a supernatural or psychic force being accepted as the explanation of some, if not all, of the phenomena occurring in spiritualism, occultism, etc. For one could cite the most remarkable occurrences—quite inexplicable by any known or natural force, if it be assumed that all the facts and conditions of the case are known—on the testimony of serious, upright, and sometimes even distinguished scientific men, whose evidence in a court of law would be accepted, and rightly so, as unimpeachable. One of the most striking examples of this which I have come across is the following "psychic" experience recorded by Mr. Serjeant Cox in his book entitled, "The Mechanism of Man" (Vol. II., p. 454, 1879 ed.):

Experiment XIV.

"At the residence of Mr. Walter Crookes. The experimentalists present were Mr. Crookes, F.R.S., Mr. F. Galton, F.R.S., Mr. Walter Crookes, and myself. Mr. D. D. Home and two ladies completed the party. The place was a double drawing-room, separated by a sideboard and a curtain. The psychic was taken by us into the smaller room, and being seated in a chair, his wrists were tightly bound with copper wire, and fastened with wire to the back of the chair. His feet were then bound by the ankles in the same manner to the legs and rungs of the chair, and the chair itself was fastened by wire to the grate. The wires were then soldered at the fastenings with melted solder, procured by us, and then he was pronounced by the scientists who had secured him to be absolutely immovable by any human power without cutting all the wires. His person thus bound was then enveloped in a dressing-gown, the sleeves of which were sewn together, inclosing him as in a sack. Thus was he placed wired to the fire-grate at the distance of

eight feet from the curtain dividing the rooms. He had no friend nor confederate. He came to the house alone, in a cab, wearing the ordinary evening dress. Having secured the door with lock and seals, and also sealed the window, to be sure that no aid could come from without, leaving him in total darkness, we went into the front room, which was fully lighted with gas, and seated ourselves before the curtain.

"*In four minutes* a bell that had been previously placed upon the table far from the imprisoned psychic was rung violently. Then a footstool, and then a chair, and then successively the greater portion of the movable furniture of the room in which the psychic sat, were passed through the curtain into our room. Presently the curtain was partially drawn and exhibited a man, dressed in the fashion of a sailor, but whose features resembled exactly those of the psychic, and whom we all were satisfied *was* the psychic. He stood there, leaning over the sideboard, talking to us for more than half an hour, addressing each of us by name and freely answering our questions. He was brisk at repartee. The tone of his voice and the manner of speaking were the same as all must have noticed in somnambules, who act with such abnormal ability whatever character is suggested to them. One instance will suffice. I said: 'Are you substantial, or only a shape?' 'I am as solid as you are,' was the answer. 'Have you blood, and spittle and sweat?' 'Yes,' he said, 'will you trust your finger in my mouth?' 'Certainly.' 'Put it in, then.' He opened his jaws, and I fearlessly thrust in my finger. The tongue was warm and moist, the teeth were solid and sharp, for he gave me a bite that made me cry out with pain. Having held me thus for nearly a minute, he let me go, and with a loud laugh said, 'Do you call that psychic force, serjeant?' I was compelled to acknowledge the presence of a powerful physical force. Upon the table in the room where we sat was a large iron ring, manufactured for us for experimental purposes. He asked me if I should like to have the ring put upon my arm. None of us had witnessed this feat. I readily assented. 'Give me your hand, then.' He took my right hand. 'Now hand me the ring.' I gave it to him with my left hand. He pressed it with some force against my arm, and in an instant

it was hanging upon it. *How* it was done I cannot even conjecture. Our hands had not parted, at least *consciously* to myself. The ring was pressed against my arm at the upper part near the shoulder. It was a momentary act, done with a touch. It was our own ring of solid iron, half an inch in diameter. I carried it upon my arm back to the table, and we examined it to be sure that it was the same ring. We now went into the other room. The psychic was as we had left him, only in a state of unconsciousness. The wires were upon all his limbs, uncut, the solder perfect, the chair bound to the grate, the dressing-gown upon him. The door was locked, and the seals on door and window unbroken."

It will be noticed that the phenomena recorded in the above case are given on the evidence of Sir William Crookes, F.R.S., the noted chemist; Mr. Galton, F.R.S., the well-known authority in the domain of travel and ethnology; and, lastly, of Mr. Walter Crookes, and Mr. Serjeant Cox, both respected, successful men in their professions. So good, indeed, is the evidence that one may appear, even to oneself, as unnecessarily sceptical if one is not convinced of the supernatural nature of the phenomena. But if we keep prominently before our minds the liability a man runs of being deceived in an ordinary piece of scientific research, and the consequent necessity of a scientific standard of truth in research problems of whatever kind, we shall be inclined to ask how far the conditions demanded by this standard have been fulfilled, before we give expression to belief in a supernatural explanation of the phenomena. The *first point* to be discussed is the question whether these witnesses, eminent in their own respective lines of knowledge, are quite such exceptionally good witnesses for the research in question as at first sight they appear. The research is one dealing with the operations either of some supernatural agency or of some tricky and distinctly material human agent. If the latter, there can be no question of the cleverness of the performer, even to an extent which appears to an ordinary man as quite impossible and inexplicable. But, then, the ordinary man, and even the eminent scientific man, has not the training or experience to make him aware of what can be performed by practised conjurers and finished professors of deception. And it is a remarkable fact, that

those who have had this training—viz., professional conjurers, of whom Mr. Maskelyne¹ is an eminent and distinguished example—are conspicuously sceptical about giving a supernatural explanation to the performances of mediums. Consequently, having no expert training myself, I should be much more impressed by the evidence of a professional conjurer than by that of the most eminent scientific men. And if Mr. Maskelyne in particular professed himself convinced of the genuineness of this class of performance, I should say it was contrary to reasonable common-sense to remain sceptical.

Secondly, the phenomena were produced under conditions which were, in many respects, unscientific. The medium was left alone in a darkened room with no one to observe him. And a still more important objection to admitting a supernatural explanation of the phenomena recorded by Mr. Cox is the fact that the phenomena constituted a single experiment, and there was no attempt at repetition, although this was not an experiment of such a nature that repetition was impossible. Therefore, the most favourable attitude that can rationally be adopted in this particular case is one of agnosticism.

Thirdly, the consideration that these phenomena took place through the co-operation of a medium inclines the mind to doubt. For mediums by now have an unenviable reputation for dishonesty, so often have they been convicted of deception. As regards Mr. Home, in particular, it is true that never in the whole course of his life was he detected or exposed. But Mr. Podmore, who, having been secretary of the S.P.R. and joint author of "Phantasms of the Living," was well versed in these matters, makes it clear in his "History of Spiritualism" (Vol. II., bk. iv., cc. 3 and 4) that he has no doubt that some, if not all, of Home's displays were mere conjuring tricks, although he admits that Home was

¹ This year (1911) Maskelyne and Devant have included in their performance an item illustrating how easily mediums allowed the use of a cabinet, a separate room, or a curtained recess can escape from almost any knots which amateur spectators are likely to use in binding and securing them with ropes. For an account of Maskelyne's imitations of the feats of Mr. Fay and the Davenport Brothers, see Appendix E.

Mr. Podmore points out *à propos* of slate-writing ("Modern Spiritualism," Bk. IV., chap. 2) that so skilled were the tricks of Slade and Eglinton that the only way of demonstrating that sleight-of-hand was the probable explanation was for an amateur conjurer, Mr. S. J. Davey, by dint of incessant practice, to equal

never detected.¹ Among other reasons for this opinion, he emphasises the fact that it was only in the early part of his life, when he was performing before people distinctly less scientific and critical than those he convinced in the latter part of his career, that he produced the phenomenon of tilting up a table covered with black cloth without the objects placed thereon falling off as the table approached the vertical. This phenomenon could, of course, be produced by the simple trick of attaching black thread to the objects in question and holding them in place in a darkened room. Such a trick would obviously be liable to detection before suspicious witnesses; therefore it is easy to understand on this explanation of the phenomenon why Home never repeated it after the beginning of his career. But if the explanation of the phenomenon were the utilisation of some psychic force, it is quite unintelligible why Home never repeated this striking experiment after he had been taken up by scientific patrons.

Lastly, Mr. Serjeant Cox showed himself on some other occasions a somewhat credulous and uncritical observer, distinctly biased in favour of the medium, as in the case of Miss Showers already referred to, so that we cannot be certain that his account of the séance records accurately what really occurred, and that the precautions taken against fraud were as stringent as he implies.

I have now dealt with one particular instance, the best one I know, of the supposed operation of psychic force, and shown how little reason there is for being convinced of a supernatural explanation of the phenomena in question. And a similar line of reasoning applies to all other instances of an allied nature. Therefore I see no object in discussing this question of psychic force any more or giving further detailed examples.

or even surpass their feats. In fact, some spiritualists were so much impressed by Mr. Davey's consummate art that they insisted he was a medium, and "that in imputing all his performances to 'trick' he was deceiving the Society and the public." (Letter from Dr. A. R. Wallace, F.R.S., printed in the *Journal S.P.R.*, March 1891.)

¹ Mr. Podmore, in his last book, says: "Under the circumstances, it is not to be wondered at that Home was never convicted of trickery. He could, of course, in his capacity as distinguished guest, not only select his sitters, but appoint their place at the table, and the ladies, who were usually chosen to sit on either hand of him, would as soon have suspected their own husbands or sons." ("The Newer Spiritualism," p. 44.)

However, before leaving the subject, I should like to say a word or two about mediums in general.

Assuming that mediums, such as Home, are possessed of some psychic force which the vast majority of human beings only possess in the germ, it is quite easy to understand that this force might vary in its intensity from time to time, and that a professional medium might consequently find himself unable to perform some experiment which at other times he would have no difficulty in bringing off successfully. And if he considered his reputation at stake, he might under these circumstances accomplish by trickery what at other times he could bring about "supernaturally" by psychic force.¹ Therefore the mere fact that a medium has been detected in resorting to conjuring tricks does not theoretically prove

¹ The following passages from "The Newer Spiritualism" are very characteristic of Podmore's attitude on the subject of "physical phenomena." He, indeed, in his numerous works on psychical subjects, makes it clear that he regards the occurrence of all physical phenomena as proof of conscious or unconscious trickery on the part of any medium: "It is not easy to see how simple trickery could explain some of the phenomena attested, such as the last incident (a fire ordeal) quoted from Sir W. Crookes's contemporary notes, or the elongation of Home's person by candle-light, as described by the Master of Lindsay. We almost seem to be driven, as Mr. Fielding and his colleagues have suggested in their report on Eusapia's manifestations, to accept the alternatives of a new force or some form of sense-deception" (a collective hallucination). . . . "As regards the first alternative, it may perhaps be admitted that a force which was capable of depressing a balance, playing an accordion, distributing flowers, and unscrewing the canopy of an Oriental idol, might conceivably be capable of carrying a slenderly built man round the room. But it is a little difficult to suppose that the same force could stretch his bodily frame to the extent of a foot or so, or could render not only his own skin but that of his elected witnesses immune alike to the pain and to the physical effects of fire. And if we add all the other phenomena vouched for by competent witnesses, including Sir W. Crookes himself, raps, spirit-lights, even semi-material mimics of the complete human form, we must suppose—that is, if we allow ourselves to be guided by terrestrial analogies at all—that we have to deal, not with one new force, but with many. We are surely not justified in doing more than casting a glance at such a possibility before we have at any rate attempted to find a cheaper solution elsewhere." . . . "We don't quite see how some of the things were done, and we leave the subject with an almost painful sense of bewilderment. But to say that because we cannot understand some of the feats, therefore they must have been due to spirits or psychic force, is merely an opiate for the uneasiness of suspended judgment, a refuge from the trouble of thinking." ("The Newer Spiritualism," pp. 80, 81, and 86.)

that he has never possessed psychic force. But, note! this is only a theoretical argument. I have given it, as I believe it blinds the minds of some quite acute people to the practical question, "What proof is there that psychic force exists at all?" As I have shown, there is no convincing proof. And now when we do not assume the existence of psychic force, the mere fact that reputed possessors of it have repeatedly been exposed resorting to trickery¹ at once lends probability to the suggestion that all their performances may be explained by conjuring tricks and not by psychic force.

A very good case in point is that of Archdeacon Colley, who quite genuinely believed in the spiritualistic nature of the appearances produced by a medium named Monck, although the said medium had been detected in fraud the year before and sentenced in a court of law (October, 1876) to three months' imprisonment as a rogue and vagabond.

¹ A complete list of media who have been exposed since 1850 might include almost a hundred names; but in default of that, a reference to the following well-known media will show the reader how common exposure has been. The numbers after the names refer to the pages in "Modern Spiritualism," Vol. II., where the respective exposures are described: Messrs. Bly, Colchester, and Foster (52); the Davenport Brothers (60); Mrs. Fay (84); "Dr." Slade (89); Florence Cook (103 and 157); Miss Showers (104); M. Firman (106); Messrs. Bastian and Taylor (107); Miss Wood (108); Williams and Rita (111); Hudson (118); M. Buguet (121); Madame Blavatsky (175); Eglinton (206); Eusapia Palladino (202). In addition, the exposures of Monck and the Fox girls have already been referred to in the text.

Huxley's remarks on media are worth recalling here: "They (the believers in Spiritualism) freely admit that not only the media, but the spirits whom they summon, are sadly apt to lose sight of the elementary principles of right and wrong; and they triumphantly ask, How does the occurrence of occasional impostures disprove the genuine manifestations (that is to say, all those which have not yet been proved to be impostures or delusions)? And in this they unconsciously plagiarise from the churchman, who just as freely admits that many ecclesiastical miracles may have been forged, and asks with calm contempt, not only of legal proofs, but of common-sense probability, 'Why does it follow that none are to be supposed genuine?' I must say, however, that the spiritualists, so far as I know, do not venture to outrage right reason so boldly as the ecclesiastics. They do not sneer at 'evidence,' nor repudiate the requirement of legal proof. In fact, there can be no doubt that the spiritualists produce better evidence for their manifestations than can be shown either for the miraculous death of Arius or for the Invention of the Cross." ("Essays," Vol. V., p. 341.)

So much reverence had the Archdeacon for the "supernatural powers" of this gentleman, that he had no hesitation in living with him on the most intimate terms, in fact sharing his bedroom.¹

That trickery is the explanation of "physical phenomena" is even better illustrated by the career of Eusapia Palladino, the most famous of all the mediums exhibiting "psychic force" during the last twenty years. She was born and bred in the slums of Naples and was married in early life to a travelling conjuror. It was in the year 1892 at Milan that she was first investigated, and since then she has been continuously quoted as the possessor *par excellence* of genuine psychic force. For she has been conspicuously fortunate in still retaining the faith of many eminent scientific men—of Professor Lombroso in particular—in spite of several exposures, those best known to me being that which occurred at Cambridge

¹ During April 1906 there was a controversy upon Spiritualism in *The Daily Telegraph*. One of the letters contained the statement that "the late Rev. H. R. Haweis, writing in the press, stated that before a Committee of the Society for Psychical Research, Mr. Maskelyne, on being asked as to whether he could reproduce the phenomena (said to be exhibited by certain sensitives) in a private room, replied in the negative, adding that it would require three tons of machinery for the purpose." Mr. Maskelyne wrote a letter to refute this oft-repeated lie, pointing out that he possessed a letter from the Rev. H. R. Haweis himself, apologising for the falsehood. This refutation greatly annoyed certain spiritualists, and then Archdeacon Colley—who had written a pamphlet to prove the probability of Christ's resurrection, citing certain experiences of his own with the medium Monck in support of the supernatural—responded in a public and controversial way, challenging Maskelyne to reproduce the same phenomena as those of Monck, and offering to pay £1000 if he could do so "any way, anywhere, at any time, as a conjurer." This led Mr. Maskelyne to include in his entertainment at St. George's Hall an item illustrating how easy it was to produce the appearance of a materialised spirit coming out of a medium's body. Also he explained the *raison d'être* of the item in a little speech in which he threw doubt on the question whether Mr. Colley had any right to the title of Archdeacon. This led to a libel action, in which the Archdeacon won small damages on the technical ground that he undoubtedly had the right to use the title of Archdeacon; but the facts revealed at the trial of the past career of the medium Monck and of his relations with Mr. Colley substantiated all that Mr. Maskelyne had said about the Archdeacon's want of critical intelligence. A full account of the trial and of the evidence, illustrating in a most instructive way the methods of spiritualists, was given in *The Times* of April 25th, 26th, 27th, 30th, and May 1st, 1907, extracts from which I have reproduced in Appendix F

in 1895 during the sittings with Professor Sidgwick, Mr. F. W. Myers and Dr. Hodgson (*Journal S.P.R.*, Vol. VII., p. 133), and the one at New York during sittings with Professor Münsterberg in December 1909.¹ After the Cambridge exposure the Council of the S.P.R. recognised that she was not a trustworthy subject for experimenting with, and consequently she was not investigated again in England. But during the next twelve years so successfully did she impose on numerous foreign investigators that in the autumn of 1908 the S.P.R. was induced to send out a Commission consisting of three of its members who possessed some knowledge of conjuring, to further test her claims to supernatural powers. The sittings were held in Naples at the hotel where the Commissioners were staying, and Eusapia was tested with apparent scientific precautions. In the end they reported that they were satisfied she possessed genuine psychic powers, although they obtained striking phenomena only when the illumination of the room had been reduced to a minimum. (*Proc. S.P.R.*, Vol. XXIII., November 1909.) One of the Commissioners, Mr. Hereward Carrington, was so much impressed that he acted more or less as her *entrepreneur* in a tour she shortly afterwards made to America. Unfortunately for him and her, she was investigated in New York by Professor Münsterberg with real scientific accuracy, which does not limit itself to so-called gentlemanly behaviour. For a man, concealed by Professor Münsterberg in the tent-like alcove behind Eusapia, caught hold in the middle of the séance of a foot which was picking up objects out of the alcove, and which turned out to be attached to Eusapia, although both her feet were supposed to be securely controlled at the time by intelligent observers. At another séance two additional observers were introduced into the room while Eusapia's attention was distracted for a moment,

¹ The whole subject of Eusapia is most luminously treated by Podmore in his "Newer Spiritualism" (cc. 3 and 4). For a shorter account dealing with other fraudulent modern mediums, as well as Eusapia, the reader is referred to an article by the conjurer, Mr. William Marriott, in the May number of *Pearson's Magazine*, 1910, where on p. 508—after describing how a medium called Bailey was brought over by Professor Reichel from Australia to Europe at considerable expense—he says: "Yet in the face of this fiasco—which had cost him at least £200—Professor Reichel writes to Bailey: 'Your deceptive mode of proceeding is all the more repugnant, as I am fully convinced that you are capable of producing genuine phenomena.'"

and so they were able to lie on the floor with their eyes only a few inches away from her feet and see exactly her method of freeing a foot from the control of the observers sitting each side of her.

I now pass on to a class of phenomena included under Spiritualism which do not necessarily need the intervention of a medium, and of which table-turning is a well-known and popular example. Table-turning in amateur circles is done in various ways, among which I select for description the following method. As soon as the table is under the influence of the circle, who have their fingers—usually in contact with one another—stretched round the edge of the table, it begins to gyrate, apparently automatically. Questions are then put to the supposed spirit operating the table, and an answer is obtained by the rather tedious method of spelling through the alphabet and noting the letter at which the table tilts. In this way the answer is spelt out letter by letter. Now the conditions for success are chiefly three: (a) that there should be no one taking part who is profoundly sceptical; (b) that some one should be a convinced believer in the "spiritual explanation" of table-turning, usually of a neurotic temperament; (c) that the performance should be carried out in a dim light. These are just the conditions for inducing a state of auto-suggestion or hypnotism.

After a few or many minutes of sitting with outstretched fingers, one or more of the sitters will become the subject of fatigue of the neuro-muscular system, encouraged by the expectancy of phenomena and by the concentration of attention not to miss the moment the table begins to move. This fatigue leads to a certain degree of tremor in the hands, and probably evinces itself first in those who are the most intense believers, especially if they are of a neurotic temperament—that is, have a nervous system easily excited and depressed. As the finger-tips are fixed by contact with the table, the tremor gives the feeling that the table is vibrating, and in the belief that it is about to move the enthusiasts quite subconsciously push the table. The moment the table moves ever so little, the whole company, including the least enthusiastic, become the subjects of a process of auto-suggestion and aid the deception quite unconsciously by pushing. If, however, a profound sceptic is present he will not be the victim of this auto-hypnotic process, and by not doing his share of the pushing or by with-

standing the tendency of the table to move, which is very slight at first, he will defeat the action of the others. Theoretically it is possible that spirits are the operating agency, as it is a matter which can hardly be subjected to scientific proof; but as the natural explanation which I have given, depending on the tendency of the nervous system to develop "automatism" under conditions tending to foster auto-suggestion, is most probable, there is no reason for seeking a supernatural explanation.¹ I had some experience of table-turning in conjunction with three or four friends when I was an undergraduate at college, all of us being young and inexperienced and half inclined to believe in a spiritual agency. Being myself of rather a "suggestible" temperament, I had no difficulty in getting the table to move. But in thinking the matter over afterwards I had little doubt but that I pushed the table and in a similar way quite unconsciously did my part in making the table tilt at the letter, which sometimes I was more or less expecting. In fact, I and my friends were the unconscious victims of a suggestive atmosphere, and I cannot illustrate what I mean by this term better than by quoting the account given by the author of "Old New Zealand" of a spirit-raising performance witnessed by himself among the Maoris (p. 122) :

"These priests or tohunga would and do to this hour undertake to call up the spirit of any dead person, if paid for the same. I have seen many of these exhibitions, but one instance will suffice as an example. A young chief, who had been very popular and greatly respected in the tribe, had been killed in battle; and at the request of several of his nearest friends the tohunga had promised on a certain night to call up his spirit to speak to them and answer certain questions they wished to put. The priest was to come to the village of the relations and the interview was to take place in a large house common to all the population. This young man had been a great friend of mine; and so the day before the event

¹ I feel that it is almost superfluous to give this natural explanation of table-turning, since the phenomenon was analysed in such a masterly manner by G. H. Lewes ("Prolegomena," § 22), who conclusively showed that there was no reason for seeking a supernatural explanation. Also the reader will doubtless remember the well-known contribution of Professor Faraday to the subject, when he devised a piece of apparatus which showed that sitters could quite unconsciously push the table.

I was sent to by his relatives and told that an opportunity offered of conversing with my friend once more. I was not much inclined to bear a part in such outrageous mummeries, but curiosity caused me to go. Now it is necessary to remark that this young chieftain was a man in advance of his times and people in many respects. He was the first of his tribe who could read and write; and amongst other unusual things for a native to do he kept a register of deaths and births and a journal of any remarkable events which happened in the tribe. Now this book was lost. No one could find it, although his friends had searched unceasingly for it, as it contained many matters of interest and also they wished to preserve it for his sake. I also wished to get it and had often inquired if it had been found, but had always been answered in the negative. The appointed time came, and at night we all met the priest in the large house I have mentioned. Fires were lit, which gave an uncertain, flickering light. The priest retired to the darkest corner. All was expectation, and the silence was only broken by the sobbing of the sister and other female relations of the dead man. They seemed to be and indeed were in an agony of excitement, agitation, and grief. This state of things continued for a long time, and I began to feel in a way surprising to myself, as if there were something real in the matter. The heart-breaking sobs of the women and the grave, solemn silence of the men convinced me that to them at least this was a serious matter. I saw the brother of the dead man now and then wiping the tears in silence from his eyes. I wished I had not come, for I felt that any unintentional symptoms of incredulity on my part would shock and hurt the feelings of my friends extremely; and yet, whilst feeling thus, I felt myself more and more near to believing in the deception about to be practised. The real grief and also the general undoubting faith in all around me had this effect. We were all seated on the rush-strewn floor, about thirty persons. The door was shut, the fire had burnt down, leaving nothing but glowing charcoal. The room was oppressively hot, the light was little better than darkness, and the part of the room in which the tohunga sat was now in perfect darkness. Suddenly without the slightest warning a voice came out of the darkness: 'Salutation! Salutation to you all!

Salutation, salutation to you my tribe! Family, I salute you! Friends, I salute you! Friend, my pakeha friend, I salute you!' The high-handed, daring imposture was successful; our feelings were taken by storm. A cry expressive of affection and despair, such as was not good to hear, came from the sister of the dead chief, a fine, stately and really handsome woman of about twenty-five. She was rushing with both arms extended into the dark in the direction from whence the voice came. She was instantly seized round the waist, and restrained by her brother by main force till moaning and panting she lay still on the ground. At the same instant another female voice was heard from a young girl who was held by the wrists by two young men, her brothers: 'Is it you? Is it you? Truly is it you? Aue! Aue! They hold me, they restrain me, wonder not that I have not followed you, they restrain me, they watch me, but I go to you. The sun shall not rise, the sun shall not rise, aue! aue!' Here she fell insensible on the rush floor and with the sister was carried out. The remaining women were all weeping and exclaiming, but were silenced by the men, who were themselves nearly as much excited, though not so clamorous. I, however, did notice that two old men, who sat close to me, were not in the slightest degree moved in any way, though they did not seem at all incredulous, but quite the contrary. The spirit spoke again: 'Speak to me, the tribe! Speak to me, the family! Speak to me, the pakeha!' The pakeha, however, was not at the moment inclined for conversation. The deep distress of the two women, the evident belief of all around him of the presence of the spirit, 'the darkness visible,' the novelty of the scene, gave rise to a state of feeling not favourable to the conversational powers. Besides I felt reluctance to give too much apparent credence to an imposture which at the very same time I felt half ready to give way to.

"At last the brother spoke: 'How is it with you? Is it well with you in that country?' The answer came—(the voice all through, it is to be remembered, was not the voice of the tohunga, but a strange, melancholy sound like the sound of the wind blowing into a hollow vessel)—'It is well with me, my place is a good place.' The brother spoke again: 'Have

you seen — and — ?' (I forget the names mentioned.) 'Yes, they are all with me.' A woman's voice now from another part of the room anxiously cried out: 'Have you seen my sister?' 'Yes, I have seen her.' 'Tell her my love is great towards her, and never will cease.' 'Yes, I will tell her.' Here the woman burst into tears and the pakeha felt a strange swelling of the chest, which he could in no way account for. The spirit spoke again: 'Give my large tame pig to the priest (the pakeha was disenchanted at once), and my double gun.' Here the brother interrupted: 'Your gun is a mamatunga, I shall keep it.' He is also disenchanted, thought I. But I was mistaken. He believed, but wished to keep the gun his brother had carried so long. An idea now struck me that I could expose the imposture without palpable disbelief. 'We cannot find your book,' said I. 'Where have you concealed it?' The answer instantly came: 'I concealed it between the tahuhu of my house and the thatch, straight over you as you go in at the door.' Here the brother rushed out; all was silence till his return. In five minutes he came back with the book in his hand. I was beaten, but made another effort. 'What have you written in that book?' said I. 'A great many things.' 'Tell me some of them.' 'Which of them?' 'Any of them.' 'You are seeking for some information. What do you want to know? I will tell you.' Then suddenly: 'Farewell, O tribe! Farewell, my family, I go!' Here a general and impulsive cry of farewell arose from every one in the house. 'Farewell!' again cried the spirit from deep beneath the ground. 'Farewell!' again from high in the air. 'Farewell!' once more came moaning through the distant darkness of the night. 'Farewell!' I was for a moment stunned. The deception was perfect. There was a dead silence—at last. 'A ventriloquist,' said I, 'or—perhaps the devil.' 'I was fagged and confused. It was past midnight; the company broke up and I went to a house where a bed had been prepared for me. I wished to be quiet and alone; but it was fated there should be little quiet that night. I was just falling asleep, after having thought for some time on the extraordinary scenes I had witnessed, when I heard the report of a musket at some little distance, followed by the

shouting of men and the screams of women. Out I rushed; I had the presentiment of some horrible catastrophe. Men were running by hastily armed. I could get no information, so went with the stream. There was bright flame beginning to spring up at a short distance, and every one appeared to be going in that direction. I was soon there. A house had been set on fire to make a light. Before another house, close at hand, a dense circle of human beings was formed. I pushed my way through; and there saw by the bright light of the flaming house a scene which is still fresh before me: there in the verandah of the house was an old grey-bearded man; he knelt upon one knee, and on the other he supported the dead body of the young girl, who had said she would follow the spirit to spirit-land. The delicate-looking body from the waist upwards was bare and bloody, the old man's right arm was under her neck, the lower part of his long grey beard was dabbled with blood, his left hand was twisting his matted hair. He did not weep, he howled, and the sound was that of a heathen despair, knowing no hope. The young girl had secretly procured a loaded musket, tied a loop for her foot to the trigger, placed the muzzle to her tender breast, and blown herself to shatters. And the old man was her father and a tohunga. A calm, low voice now spoke close beside me: 'She has followed her Rangatira,' it said. I looked round and saw the famous tohunga of the night."

In this account it will be observed that the conditions were just those calculated to counteract a spirit of calm scientific inquiry—viz., the presence of a company of already convinced believing enthusiasts expressing their emotions by groans and other cries, little or no light, suffocating heat, etc. And there is no question that similar conditions, if less pronounced, are present in all cases of successful occultism. Therefore, I will not stop here to inquire in detail into the claims of other occultists that their performances are to be regarded as evidence of a supernatural agency, and to any one inclined to believe in Madame Blavatsky, in particular, I would recommend a book called, "Isis Very Much Unveiled," by Edmund Garrett, where the author gives an account of the tricks by which she imposed upon her dupes, and proves clearly, on evidence which has never been refuted, that she was

an impostor, deliberately supporting her claims to supernatural powers by tricks and deceptions carefully planned, and carried out in collusion with others.¹

I have heard some common-sense people argue before now that, though a natural explanation of some phenomenon was the more probable, yet the result was so striking, and had led to such remarkable consequences, that they were still believers in its being a question of supernatural guidance. This, of course, is an absolutely unscientific or unreasonable argument, as belief in a spiritual agency is quite sufficient to lead human beings into doing the most extraordinary actions, as illustrated by the lives of religious fanatics, and in the above tragic story by the suicide of the Maori girl.

Allied to belief in the spiritualistic explanation of table-turning is belief in the spiritualistic source of messages received by means of "planchette" or automatic writing. The natural explanation of these phenomena is also very similar—namely, a neurotic temperament and a state of auto-suggestion—and in the case of automatic writing there is undoubtedly a special genius for this type of performance, as authentic records exist of subjects writing independent messages with both hands at once, showing that the two halves of the brain are working independently, which at first sight may suggest to readers who are not trained in psychology or physiology that spiritual agencies are the operating forces.²

¹ Mr. Hodgson was sent out by the Society for Psychical Research in 1885 to India specially to investigate the phenomena and claims associated with the name of Madame Blavatsky. He made a report (*Proc. S.P.R.* Pt. IX., December 1885), indicating that she was only a common impostor. After her death, her associates fell out over the question of who should be President of the Theosophical Society, and made charges against each other, giving the whole "show" away. A most amusing and clever account of all these facts was written by Edmund Garrett in 1894 in a small book entitled "Isis Very Much Unveiled" (Westminster Gazette Library).

² One of the most interesting tests to which automatic writing has ever been put was the occasion on which the message, received through the automatic writing of Mrs. Verrall and believed by her to have come from the late F. W. Myers, was compared with a message written by Mr. Myers nearly fourteen years before, and given by him in a sealed envelope to his friend Professor Oliver Lodge, who had kept it securely ever since. The two messages were compared at a special meeting of the S.P.R. (see *Journal*, Vol. XII., p. 11, January 1905), and to the disappointment of many were totally dissimilar, giving no support to a telepathic explanation of automatic writing.

In support of the view that automatic writing and planchette

This, of course, cannot be disproved, and in the next chapter I shall discuss, in connection with "telepathy," what can be said in favour of the supernatural explanation. But there is nothing improbable or difficult to understand in the natural explanation.

The last subject to be dealt with in this chapter is that of ghosts and materialised spirits. The word "ghost," as popularly used, has rather a vague connotation. It connotes, on the one hand, a being that can grip you by the throat going downstairs, and, on the other hand, an object which melts away as you walk into it. But, as a result of the investigations of the Society for Psychical Research during the last thirty years—in which time it has not been able to substantiate one single ghost-story of the old-fashioned type—it is recognised now that an explanation of "sensory hallucination" must be given in all these cases (see Podmore's "Telepathic Hallucinations: the New View of Ghosts"). What is the cause of these sensory hallucinations is another matter, and it is bound up with the question of telepathy, a subject to be discussed in the next chapter.

Passing now from the subject of old-fashioned ghosts to that of modern ghosts or materialised spirits, which possess the attributes of matter, such as the power to reflect light and affect a photographic plate,¹ one feels

writing are the result of subconscious natural processes, I can quote an interesting experience of a friend of mine, who was most successful in writing with planchette. He was at Trinity College, Cambridge, in 1903, and one day he was unable to remember the first line of a piece of poetry which he had previously learnt by heart and knew quite well, being able to recall it all but the first line. He then thought of experimenting with planchette to see if it would write out the forgotten line. This it did with complete success, indicating in this particular instance, at any rate, the subconscious and natural nature of "planchette writing."

¹ A committee, formed under the auspices of the *Daily Mail*, investigated the subject of spirit-photography in 1909. "Three spiritualists and three expert photographers formed the committee. The three spiritualists reported that the photographers were not in a proper frame of mind to succeed in obtaining 'spirit-photographs.' The photographers announced that no scrap of testimony was put before them to show that 'spirit-photography' was possible. But they went further, and herein lies the feature of this particular investigation. They invited the submission to them of spirit-photographs, and having examined these critically, they report that not only did they not testify to their supernatural production, but that they bore on the face of them circumstantial evidence of the way in which they had been produced; in other words, that the prints were not mysteries,

on surer ground in asking for scientific proof before admitting a supernatural explanation. As none of the recorded instances that I have come across ever fulfils the conditions demanded by a scientific standard of truth, I have no hesitation in giving an explanation of fraud to all such appearances, as they are, on the one hand, entirely against probability, and, on the other hand, always necessitate the intervention of a medium. At the same time, this class of case is of great interest, in that exactly the same evidence is often given by enthusiastic believers in proof of a supernatural agency as is sufficient to prove to me that a very material agent has been at work. For instance, in the case of "Archdeacon Colley *versus* Maskelyne," already quoted, it came out that one of the experiences which convinced the Archdeacon of the medium's supernatural powers was the following: He saw a spirit-form evolve out of the medium's side and advance towards himself. He was then allowed to seize hold of the spirit; and although he found he had hold of a piece of muslin wrapped round the medium's body, yet he still continued to believe (and, perhaps, to this day believes) that a genuine materialised spirit had entered the medium's body.

Again, it is a curious fact how even distinguished scientific men may sometimes be so much the subjects of bias that their standard of truth can be quite different in researches of this nature from what it is in problems of so-called "natural science." For instance, the distinguished French physiologist, Richet, is reported to have given in an interview his own personal experience as proof of the materialisation of spirits.¹

He was the guest in Algeria of General and Madame Noel, who apparently for a year or more had been develop-

but self-revealed fakes." (The rest of this quotation from an article in the supplement to *The Weekly Times*, of June 25th, 1909, is too long to reproduce here, but is given in Appendix A.) The whole subject of spirit-photography is also most concisely and convincingly treated by Mr. William Marriott in the August number of *Pearson's Magazine*, 1910, where it is shown that by trickery spirit-photographs can be produced under "test conditions," that is, in an apparently inexplicable way to the ordinary man, who is not a conjurer. The article is illustrated with reproductions of such photographs.

¹ This interview with Professor Richet is given in the December number of the *Pall Mall Magazine*, 1906. See also "Annals of Psychical Science," Vol. II., p. 207, October 1906, where Professor Richet describes in detail his experiences at the Villa Carmen with the medium Mademoiselle Marthe B.

ing belief in the mediumistic powers of Mlle. Marthe B., but recently the fiancée of their son, deceased in the Congo. The séances took place at their residence, the Villa Carmen, in August and September 1905. Mlle. Marthe B., with the help of a negress servant and a materialisation alcove (a corner of the room curtained off) into which they both retired, produced what purported to be the materialised spirit of an Arab, "Bien Boa" by name. Professor Richet asked the spirit to blow through a tube into a glass of fluid which was standing on a table. M. Bien Boa most obligingly and guilelessly did so. The fluid turned cloudy. Now, as the fluid was baryta-water, and the cloudiness was due to a precipitate of carbonate of barium, it is satisfactory evidence that carbonic acid came from the spirit, and one could not have a better proof than this of its material nature. But, whereas this affords conclusive evidence to Professor Richet's mind—as well as to mine—of the material nature of the spirit, it raises no doubt in his mind of the spiritual nature of the matter! Is not this an excellent example of belief warped by bias and of experiment done without scientific precautions, such as control experiments, for arriving at the truth? For I am sure that any one who has seen what Maskelyne can do with a materialisation-cabinet will realise the necessity of being extra careful before giving a supernatural explanation to the performance of a medium allowed the use of apparatus. In this particular case, Professor Richet describes the details with such transparent honesty that it is possible to see exactly how he was taken in. For, *first*, the room was only illuminated by a candle placed in a red photographic lantern which stood on a shelf at a height of 6 ft. 9 in. above the floor. He says: "Finally, I will note that the curtain had an opening and was so made that the right side was longer than the left side. When the curtain was fully opened, we were able to distinguish the hands and faces of the mediums and their garments. At the same time, it was rather difficult to recognise them when the opening was at its maximum. On the contrary, in the room itself, outside the cabinet, at a distance of 1 yd. to 1½ yds. the various sitters could easily be recognised." *Second*, he took no precautions to control the medium, for he says: "Let us assume that Marthe, whom we have never searched nor bound, could bring on her person all the apparatus necessary to serve for her disguise-ment,

is it possible that she could have made use of them? Now I answer boldly: 'No.' " *Third*, we are told that the materialised figure had a face exactly like that of the medium, "if she had stuck a coarse black moustache on to her upper lip." *Fourth*, Professor Richet admits that he was never permitted to catch hold of the materialised figure, although he had "in vain at various times asked insistently for this experience." *Fifth*, in the photographs taken by flashlight the figure of Bien Boa always concealed the medium's face, although the negress came out quite clearly. This is Professor Richet's explanation: "In fact, Bien Boa had informed us that, as Marthe feared the magnesium light, he would take care to hide her eyes and face during the taking of the photograph." *Sixth*, in one of the photographs the left sleeve of the medium's dress is seen apparently pinned to the negress's chair, and is apparently empty of any arm. Here is Richet's comment on this surprising fact: "These are certainly very serious objections, but it is allowable to suppose that the phenomenon, so mysterious, almost inexplicable, which we call materialisation, is accompanied by a sort of disaggregation (?) of the pre-existing matter, so that the new matter formed is formed at the expense of the old, and that the medium empties herself, so to speak, in order to constitute the new being, which emanates from her, and which cannot be touched without harm to the medium. . . . I am not afraid of saying that the emptiness of this sleeve, far from demonstrating the presence of fraud, establishes, on the contrary, that there was no fraud; also that it seems to speak in favour of a sort of material disaggregation of the medium, which she herself was incapable of suspecting." *Seventh*, in an appendix to Richet's account written by a Madame X., who took part in the séances, we learn that on one occasion they detected Marthe putting her hand through the opening in the curtain. Here is the comment on this unfortunate accident: "I am quite sure this was Marthe's hand we saw, for I distinctly saw her rise from her chair, pass her hand through the aperture in the curtain and shake her hand about in a way identical with the way in which the 'materialised' hand had, a little while before, shaken itself about; and this at a moment when I had seen Marthe's two hands on her knees. This 'automatism' is easily explained, so it seems to me, by circumstances . . . the exhausted medium was most probably hypno-

tised into simulating reality by this tiresomely reiterated request for the very phenomena simulated. It was pure automatism, and a clumsy one, too."

I have given this experience at considerable length, so that the reader may judge for himself the quality of the evidence which often convinces scientific men—in other fields justly eminent—whose opinion is then quoted by the public as conclusive proof of the reality of spiritualistic phenomena. But it must not be imagined that fraud is always the explanation of so-called ghostly appearances. For belief in that class of ghost, associated with a sensory hallucination, undoubtedly rests on better evidence. I, myself, know a man who, in walking along a road, saw the figure of an old woman so real in every respect that he stepped out of the way to avoid it, and yet next second it had disappeared. Another of my friends saw the figure of a man, dressed in the antiquated dress of a smuggler of a century ago, appear on the cliff-road along which he was walking, and then suddenly disappear over the cliff. There can, in fact, be no doubt of the genuine occurrence of this class of phenomena; but the question still remains whether it is necessary to seek a supernatural explanation. The natural explanation is that they are all subjective phenomena, due to brain conditions or to misinterpreted sense-perceptions (*i.e.*, hallucinations and illusions). Thus, my friend who told me about seeing the figure of an old woman, though quite convinced of the reality of the phenomenon, was quite prepared to admit that he may have been deceived by a shadow on the road, or by some other illusory appearance. In favour of a natural explanation of such occurrences are the following considerations:

(a) That diseased conditions of the brain are known to give rise to delusions and hallucinations, as in the well-known instance of the victim of delirium tremens seeing snakes or rats or beetles, etc.

(b) That conditions of disturbed cerebral circulation are also known to give rise to visions of people and other hallucinations. Dr. Henry Head, for instance, has written a paper on "Certain Mental Changes that Accompany Visceral Disease," from his own hospital experience, in which he describes a variety of hallucinations.

(c) That people in apparently good health are sometimes subject to curious neurasthenic symptoms, of which hallucinations are not uncommon. Of course, if we adopt

a natural explanation, and it is admitted that these experiences are subjective, it does not exclude the possibility of the subjective phenomena being themselves the result of a supernatural agency acting on the brain; but here we reach a region of hypothesis pure and simple, incapable of proof or disproof. And as we know that diseased conditions of the brain can produce subjective phenomena, it is only reasonable to give the same explanation to allied subjective phenomena, till very strong reasons are found for the probability of a supernatural agency, and till belief in the same rests on something stronger than mere assumption and the bias of superstition, characteristic of ignorant savage races and of childish minds. This class of ghost-story can be classified under the heading, "Phantasms of the Dead and Living," and it will perhaps be of interest to the reader if I anticipate what I am about to say on the subject of telepathy by citing two or three interesting cases of this type of experience.

Before doing so, however, some remarks about the kind of testimony on which such experiences rest are necessary.

Gurney, who may be described as the chief author of "Phantasms of the Living," says in his introductory remarks: "We have not been able to regard the alleged phenomena in the completely detached fashion which most of those who consider them naturally adopt. We are unable to determine how far the impression on our own minds of the evidence for *spontaneous* telepathy has been dependent on our conviction of the genuineness of cognate *experimental* cases." This means that he admits bias in favour of the possibility of *spontaneous* cases of telepathy generally, and he himself says that thereby the presumption against belief in wraiths and phantasms of the living is diminished and "the hospitality of the mind to such phenomena is increased in a degree which is none the less important that it does not admit of calculation." Such bias is reasonable in so far as it makes anyone prepared to believe in the possibility of phantasms of the living, especially if the experiments in telepathy on which it rests are reliable; but it is unjustifiable if it makes an investigator lax in demanding corroborative evidence of the truth of the story in each particular case. For, as Mr. Taylor Innes says (*Nineteenth Century*, Vol. XXII., pp. 192, 193):

"Experiments in telepathy may very well dispose those who are fortunate enough to witness them to be

perfectly willing to admit evidence for wraiths generally—to be satisfied that there is no presumption against wraiths, and that the truth of each alleged case simply depends upon the evidence brought forward for it in particular. That belongs to the region not of telepathy, but of testimony. Some of us have long since been convinced that a wraith, like any other alleged phenomenon—a meteor or sea-serpent—is to be believed the moment proof for it is brought forward, and that, assuming even that there is no presumption for it, there is certainly none against it. And once that point is attained, experimental telepathy cannot help us much in dealing with the evidence for a case said to have occurred spontaneously. In particular, it cannot help us in what has been the sole subject of our inquiries here—the weight to be attached to subsequent oral and to contemporary written testimony, respectively. The value of these *inter se*, the general slipperiness of the former and the general conclusiveness of the latter, and how far in any particular case we can get past the evidence which is slippery and subsequent, and fall back upon that which is conclusive and contemporary—all this belongs to the region of common-sense, dealing with different classes of testimony. And in that region of comparative evidence a bias in favour of telepathy, like a bias against it, cannot seriously help an inquirer, though it may seriously hinder him. It is unfortunate, therefore, if any such bias has been so powerful as to produce the treatment of documentary evidence which we have here criticised.”

The last words of the above quotation refer to the fact that Mr. Innes showed that in all the 702 cases appearing in “Phantasms of the Living”—representing the sifted material out of over 2,000 depositions about wraiths and allied phenomena, and containing 350 experiences which were related to the authors first-hand and were passed by them as satisfying their standards of evidence—there was not a *single* case in which documentary evidence corroborating the truth of the story was produced. And this, in spite of the fact that in at least twenty cases the narrator alleged that letters crossed, describing the experience and the corresponding actual event, or that some documentary proof had been issued at

the time; while in quite a hundred cases the existence of some corroborative documentary evidence is implied. Further, in nine cases in which documentary evidence was still forthcoming the story was weakened rather than strengthened,¹ and in at least two cases the authors passed stories where the statement that a note of the experience had been made at the time turned out to be a falsehood or an invention. On the significance of this Mr. Innes says:

"Now it might be going to work too strictly to say to every man who tells us of a wraith or phantasm, 'We cannot listen to you unless you prove that you made a note of it at the time and before you heard of the fulfilment.' That, of course, is the most conclusive kind of evidence. Yet in its absence we may receive his statement as uncorroborated verbal evidence. But it is a different matter where a note made at the time is actually alleged, and that pretended note no longer exists—above all, where, as in the two cases just quoted, it turns out to be a falsehood or invention. In such a case it is surely not too much to ask of an intelligent scrutiniser of evidence that he shall wipe out the story from the mass of delusion that solicits the wearied eyes of men. Yet, if such a principle were acted upon in these volumes, how much of them, in so far as they profess to be contemporary records of the facts, would be left? What, for example, would become of No. 140? . . . And it is too evident that its being printed here is a mere indication of the systematic relaxation of all ordinary rules with which this matter of documentary evidence is throughout treated. I have said nothing with regard to the surrounding mass of spontaneous cases where there is no written evidence to help us, having made no study of these. But I have observed no indication that these have been dealt with on any more rigid principle than the documentary cases we have investigated in detail, or that the latter have been singled out for laxity. I suspect it will be found that both departments of testimony to alleged spontaneous appearances share in the same merits and defects which we have found in the one which alone the public can adequately test." (*Loc. cit.*, pp. 191, 192.)

¹ For an excellent recent case, see Appendix G (B)

A further point to be realised is that the reader of a book like "Phantasms of the Living" only gets the stories at second-hand, and so cannot judge of the value of the written evidence unless the editors say minutely "what endeavours have been made to inspect the documentary evidence; with what refusal or other obstacles that endeavour was met; and whether, in the resulting view of the editors, the document which they refer to exists now or ever did exist at all?" It is always necessary to remember this, because, as Mr. Innes says,

"in some of the most important of the cases now before us, as well as of those where letters crossed or were exchanged, there is no notice of any such endeavour, and no statement how it was frustrated. And it is necessary to point out that this system of printing stories about documents without remark destroys the confidence which we are intended to derive from the following assurance: 'As far as written testimony goes, the reader will have the same opportunities as we have had for forming an opinion.'" (*Loc. cit.*, p. 187.)

The moral to be drawn from all this is that in the absence of documentary proof—and a single case, in which the letters, said to have crossed, could be produced with the official postmark and date, would be sufficient to prove the truth of this class of phenomena—stories of phantasms or wraiths rest on nothing better than uncorroborated oral evidence, with all the fallacies of unconscious exaggeration, invention, the natural human love of the marvellous, and defective memory, attached thereto. For psychologists who have specially studied the subject have no hesitation in stating that the memory of a dream or waking hallucination cannot be relied on for accurately reproducing the experience as it actually occurred. Even Gurney admitted that "the story of the percipient" is far more liable to error than the account of the actual death or crisis which was said to have been perceived. With these preliminary warning remarks, I now proceed to give a few examples of phantasmal experiences.

One of the best cases was the appearance of Dr. Astley's supposed astral body to his housekeeper at King's Lynn, and also to his *locum tenens*, the Rev. R. Brock, in December 1908, when Dr. Astley was away in

Algeria on a holiday.¹ Another good example is the following case of General Thompson's dog, which has some features recalling the well-known experience of Sir Rider Haggard, who had a vivid dream, in which he saw a favourite dog lying in some water about the hour when the dog was killed by a passing train on a bridge over a river.²

General J. C. Thompson is an American, and his statement is as follows :

" Jim, the dog whose ghost I refer to, was a beautiful collie, the pet of my family, residing at Cheyenne, Wyoming. His affectionate nature surpassed even that of his kind. He had a wide celebrity in the city as the ' laughing dog,' due to the fact that he manifested recognition of acquaintances and love for his friends by a joyful laugh, as distinctively such as that of any human being.

" One evening in the fall of 1905, about 7.30 p.m., I was walking with a friend on the Seventeenth Street in Denver, Colorado. As we approached the entrance to the First National Bank, we observed a dog lying in the middle of the pavement, and on coming up to him I was amazed by his perfect likeness to Jim in Cheyenne. The identity was greatly fortified by his loving recognition of me, and the peculiar laugh of Jim's accompanying it. I said to my friend that nothing but the 106 miles between Denver and Cheyenne would keep me from making oath to the dog being Jim, whose peculiarities I explained to him. The dog, astral or ghost, was apparently badly hurt; he could not rise. After petting him and giving him a kind adieu, we crossed over Stout Street and stopped to look at him again. He had vanished. The next morning's mail brought a letter from my wife, saying

¹ This experience is too long to reproduce in any detail here; so I have inserted in Appendix G (A) quotations from *The Times*, illustrating the particular features of this case.

² Sir Rider Haggard's experience was first published in the form of a letter to *The Times* on July 21st, 1904, p. 4. In a second letter to *The Times* on August 9th, he admits the dog was killed instantaneously, and says: " No telepathic impressions could have been produced by the dog, as the dog was in life. If at all, then, they must have been produced by a dog to all intents and purposes dead." His own solution is *either* some non-bodily but surviving part of the life or spirit of the dog, *or* a mere " raw-boned " coincidence.

that Jim had been accidentally killed the evening before at 7.30 p.m. I shall always believe it was Jim's ghost I saw." ¹

As I gather that General Thompson actually touched the dog, inasmuch as he says that he petted it, one's reason at once suggests that he was mistaken in the dog, and by coincidence his own dog died about the same time. For if it was a case of waking hallucination, it had very unusual features entailing tactile, visual, and auditory hallucinations. Further, if General Thompson really believed it was his own dog, his conduct in leaving the dog "badly hurt" was most unfeeling.

Another authentic and instructive case is the experience of Mr. F. G. of Boston, who saw what he thought was the apparition of a favourite sister nine years after her death. His statement is as follows:

"The hour was high noon, and the sun was shining cheerfully into my room. Whilst busily smoking my cigar and writing out my orders, I suddenly became conscious that some one was sitting on my left with one arm resting on the table, and quick as a flash I turned, and distinctly saw the form of my dead sister, and for a brief second or so looked her squarely in the face; and so sure was I that it was she that I sprang forward in delight, calling her by name, and as I did so the apparition instantly vanished."

The visitation so impressed the percipient that he took the next train home and related to his parents what had occurred. He particularly mentioned a bright red line or scratch on the right-hand side of his sister's face which he had distinctly seen.

"When I mentioned this, my mother rose trembling to her feet and nearly fainted away; and as soon as she sufficiently recovered herself-possession, with tears streaming down her face, she exclaimed that I had indeed seen my sister, as no living mortal but herself was aware of the scratch, which she had accidentally made while doing some little act of kindness after my sister's death. In proof, neither my father nor any of our family had detected it and were positively unaware of the incident. Yet I saw the scratch as bright as if just made. So strangely impressed was

¹ General Thompson's experience is quoted by Beckles Willson in "Occultism and Common-Sense," p. 38.

my mother, that, even after she had retired to rest, she got up and dressed, came to me, and told me she knew that I had seen my sister. A few weeks later my mother died." ¹

Although I shall discuss in the next chapter the different types of waking hallucination, of which this is most probably a case, yet I will here make a few remarks on this particular experience. Like all these cases, it is not capable of repetition, and so no scientific proof of the cause of the phenomenon is possible. But from a common-sense point of view the scratch seen on the face of the apparition does not impress me in favour of a supernatural explanation. It is very possible that this was a striking feature of the apparition; but it must be remembered that dreams and waking hallucinations (both those which come true and those which do not) are often characterised by absurd and peculiar features. Again, there is no doubt that it was this feature which impressed the narrator's mother, as she knew of the scratch she had made after death. But to my mind the mere fact that the scratch was made after death makes it difficult for one's reason to admit any causal connection between the dead sister and the apparition. If conditions which arise after death could affect the nature of an apparition, we might as soon have expected the sister's skeleton to have appeared. Consequently, if my remarks strike the reader as just, this is a very good instance of how a mere coincidence impresses the unscientific actors in an experience of this kind with the necessity for a supernatural explanation. Also it is a good instance of a psychical experience being ingenuously told as if only one explanation were possible. The fact that the narrator's mother said she knew he had seen his sister does not prove anything, nor the fact that a few weeks later his mother died.

¹ This experience is also quoted in "Occultism and Common-Sense," p. 101.

CHAPTER IV

TELEPATHY AND CLAIRVOYANCE

UNDER the heading of telepathy¹ is included every phenomenon suggesting that mind is able to act on mind at a distance without the aid of speech or the five senses. The evidence for telepathy is at first sight most striking and abundant, so that a belief in its reality is now almost universal, at any rate outside strictly scientific circles. However, in spite of this, I propose to examine the nature of the evidence, and I will begin by quoting a typical case of supposed telepathy, which, as far as I know, has never been published. I am acquainted with a lady who was practising private nursing in Australia about the year 1900. Early one morning she woke up full of dread, and feeling that her favourite sister in England wanted her. She told me that she was sufficiently impressed to make a note of the time and circumstance in her diary; and that six weeks afterwards a letter came announcing the death of her sister, just about the time that she had had the feeling of dread.²

¹ The reader interested in telepathy should also refer to Appendix H, where some other difficulties connected with this hypothesis are examined.

² This is the type of experience which gets quoted without any attempt at scientific verification. Yet how necessary this is was shown by the researches of the late M. Vaschide, who collected as many as 1374 cases of subjective hallucinations experienced by thirty-four persons (eighteen women and sixteen men) from among his own personal friends and acquaintances. Of these 1374 experiences, 1325 were thought by the subjects of the hallucinations to correspond to some real fact; in other words, to be veridical. But M. Vaschide found, on making inquiries, that such was really so in only forty-eight cases; that is, there were 1277 cases or 96 per cent. in which the subject of the hallucination had imagined the veridical coincidence. The forty-eight cases where there really was a coincidence between the hallucination and the fact only form 2.25 per cent. of the total number of cases, and may therefore well be explained by chance-coincidence when it is considered that often a train of thought leading up to the hallucination had been started by knowledge of the illness of a relative or friend. The reader should certainly himself refer to this important research of M. Vaschide ("Les Hallucinations Télépathiques," Bloud & Cie., 1908), where the facts underlying the hallucinations are analysed and the whole question of "phantasms of the living" is fairly, if critically, examined.

Many similar experiences have now been recorded by thoroughly trustworthy witnesses; and some of the best may be found in the publications of the Society for Psychical Research, so that there really is no question about the facts in many of these cases. The only question is about the explanation.

Now, I have known two or three other persons with experiences similar to the one I have quoted; and the first thing which strikes me about these persons is, that so much have they been impressed by their single personal experience that no amount of evidence to the contrary would shake their belief in the existence of telepathy. They have made up their minds irrevocably on their own single personal experience. In contrast to this, just consider what a similar course of action would mean in any research problem of natural science. For if an experimenter trusts to a single experiment, however striking, without repetition, the chances of his being led into fallacies are enormous, as has been proved repeatedly in the history of natural science. Perhaps only a man who has done research can fully realise the foolishness of such an unscientific method of basing belief.

But it may be objected that, owing to the nature of the case, these so-called telepathic experiences cannot be repeated, and that, on the other hand, there have now been recorded hundreds of similar cases. This last argument is apt to be very convincing to any one without a scientific training. But from a scientific point of view one experiment repeated ten times and giving the same result under approximately identical conditions is a hundred times more convincing than a hundred different experiments giving non-identical results, even though some of them be analogous or individually extraordinarily striking. Scientifically all one can say is that the evidence for telepathy is wonderfully suggestive; but that as the conditions practically never admit the repetition of any one experiment, it is most reasonable to remain agnostic till the question of other possible explanations has been discussed. If one can find a natural explanation which is probable, and which is in accordance with the known facts of physical science and mental physiology, it will be unnecessary to seek what we may call the supernormal explanation of telepathy, though theoretically there is no difficulty in believing in the possibility of mind acting on mind by vibrations started in the ether or any other theoretical medium which one chooses to postulate.

Practically, however, there is overwhelming evidence that on ordinary occasions mind does not act on mind at a distance, as will be obvious at once to the reader who considers the facts of life. In war, for instance, there would be no need of an "intelligence department," if the enemy's plans could be detected by telepathy. We have then got to consider if a natural explanation of telepathy can be given to those extraordinary occasions when telepathy to the ordinary uninstructed mind appears the only possible explanation of the facts. If such an explanation can be given, and it appears probable to the reader, he must choose for himself between the normal and supernormal explanations, as the question can never be absolutely proved one way or the other.

Telepathy is rather a vague word, and so it embraces a large number of diverse phenomena, which admit of a certain rough classification, viz. : (a) Cases where facts known to a mind in a living body are supposed to be made known to the mind of the percipient. (b) Cases where facts known to a mind before death are after death made known to the mind of the percipient. (c) Cases where facts known to no human mind are made known to the mind of the percipient, and therefore may be looked upon as instances of telepathy between "the Divine Mind" and a human mind. In theological language such cases are called "Special Providences," or "the Interposition of Providence."

Again, different names are given to telepathic phenomena in accordance with the state of the percipient, viz. : (1) a dream constitutes a case where the percipient is asleep; (2) a waking hallucination is a case where the percipient, in apparently normal health and awake, receives an impression; (3) clairvoyance includes cases where the percipient transmits messages, generally from supposed disembodied spirits or discarnate intelligences, either (a) by automatic writing, etc., or (b) in a state of trance, or (c) under what I may call mediumistic conditions, that is, with the help of apparatus or a darkened room, and often accompanied by physical phenomena. (4) Lastly, there are a number of cases done under supposed experimental conditions.

Before discussing telepathy, I want to impress on the reader what is the nature of hypnotism, as in popular psychical literature nothing is commoner than to find great confusion of ideas and language on the subject, and to read of hypnotic phenomena as proof of telepathy.

One of the simplest instances of a living mechanism which responds to suggestion is that of a frog deprived of its cerebral hemispheres. It is only necessary to set up a sensory stimulus for the frog inevitably to react in some particular way. It has no will of its own, for it subconsciously reacts like an automaton to sensory stimuli. Thus, whereas a normal frog on the one hand sits up on its hind legs and reacts to stimuli as it likes—and one can never prophesy beforehand how it will behave—on the other hand, a frog deprived of its cerebral hemispheres (the highest parts of the brain) lies more or less flat on the ground and makes no effort to move. If a piece of moist paper is placed on its nose, so as to obstruct the inflow of air, it will inevitably brush it away. A normal frog, on the other hand, might leave it alone or hop away.

This is a very simple instance of subconscious action; but it serves fairly well as a ground-work for building up a picture of the state of a hypnotised subject. Such a subject, of course, is a much more complicated mechanism than the frog deprived of its cerebral hemispheres; but the principle is much the same. The subject's will-power, though it may be actually stronger, works more or less in conformity with the suggestions of the operator, and actions are performed sometimes quite subconsciously in response to the stimulus of suggestion.

The experiments of Dr. Bramwell¹ and others on time-

¹ Dr. Bramwell carried out a series of experiments on a lady, who agreed to write down the time on a piece of paper (which she always carried about with her) whenever she felt the impulse to do so. In each experiment the lady was hypnotised, and the suggestion was made that she should write down the time after a certain number of minutes had elapsed. This she succeeded in doing correctly to the minute in forty-five out of fifty-five experiments. Of the remaining ten experiments, in eight there were minute differences, never exceeding five minutes between the subject's correct estimate of when the suggestion fell due and the moment at which she carried it out. Here is one experiment: Dr. Bramwell hypnotised her, and a friend (Dr. Barclay) who was present suggested that she should write down the time in 21,434 minutes. When she woke up, she had no remembrance of the suggested time. Yet she wrote down the time correctly 21,434 minutes after the suggestion had been made. In her normal state the lady was incapable of correctly calculating in her mind how many days and hours 21,434 minutes would make; and even in the hypnotised state her reckoning was not free from error.

Similarly, the wonderful appreciation of space and power of balance shown by somnambulists is but another example of the important faculties possessed by lower centres, when unchecked by

estimation, etc., in hypnotic subjects are sometimes referred to in popular psychical literature as proving the probability of telepathy, but they prove nothing more than the following, that in the course of growth (both of the child, and also of the race from which he has been evolved) the various habits acquired by human beings and carried out by the lower centres are learnt under the conscious guidance of the higher centres or so-called will-power. In the course of time these habits can be carried out more or less subconsciously, so little effort does it now take for the higher centres to start the mechanism. And in a few instances, like that of time and space appreciation, the mechanism comes to work so smoothly without the interference of the higher centres that we are unaware how excellent is the mechanism of the lower centres until we do special experiments to demonstrate it.¹

Thus all that hypnotism has proved is the excellence of the nervous mechanism which can be put into action either in a state of hypnosis by the suggestions of an operator, or normally by one's own will-power, or subconsciously in quite a normal way by sensory stimuli, as when a labourer can very nearly guess the time of day, although he has no watch on him.

As we are sometimes conscious of this mechanism and sometimes not, the name subliminal consciousness or subconscious self has been given to the mental side of the phenomenon. And some writers on psychical subjects are very fond of talking as if "subliminal consciousness" were the same thing as "soul," and as if it were the subconscious self which possessed the telepathic faculty.²

the interference of the so-called will; for consciousness of danger and the fear thereby felt at once deranges the mechanism.

For a fuller account of these and analogous experiments I must refer the reader to Dr. Bramwell's book, "Hypnotism, its History, Practice and Theory" (1903, Grant Richards).

¹ The inhibitory action of the higher centres associated with consciousness will be quite familiar to any one accustomed to play pieces of music by heart. The piece having once been learnt, the lower centres carry out the mechanical part of the performance almost subconsciously, while consciousness is concentrated on expression, interpretation, etc. Now, very often if one diverts one's attention to the mechanical part of the performance, and consciousness is allowed to be occupied with the thought "I wonder if I have forgotten the next bar," the whole mechanism is interfered with, and one cannot play any more correctly.

² For instance, in the *Westminster Gazette* of November 1907, one reads in "Notes of the Day": "His (i.e., the writer of articles on 'Occultism and Common-Sense') conclusion is briefly that amid

For this assumption hypnotism does not afford adequate evidence. All that hypnotism has proved is the wonderful range of action of the lower centres, and how this mechanism can be controlled by outside suggestions coming through the senses. Hypnotism, in fact, contains no difficulties for the most pronounced materialist, and affords no support whatever to the views of spiritualists or other believers in supernatural phenomena.

Having now cleared the ground by giving a brief account of the nature of hypnotism and what it has proved, I will consider some of the difficulties associated with giving a telepathic explanation to the phenomena of dreams, second-sight, waking hallucinations, clairvoyance, and trance-utterances.

First, as regards dreams, it is a commonplace how often dreams do not come true, and what nonsense many a dream is.¹ And yet if telepathy be given as an explanation of the dreams which do come true, it is hardly logical to give a different explanation to the other ninety-nine per cent. However, taking only those dreams which appear to have been verified, there is very little justification for giving a telepathic explanation. For the only fact in common to the group is the feeling of dread or anxiety felt by the percipient. There is no strict correlation between the time of the experience and the hour at which the object of the dream (who often is in a dying state or placed under abnormal conditions) is supposed to have been thinking of the percipient.

much fraud and self-deception there is good evidence for the existence in the living personality of faculties which are called telepathic, subconscious, or subliminal."

¹ A friend of mine recently told me that one night in 1906 he dreamt that he was present at his sister's funeral, and was so much impressed that in the morning he sent a telegram to his parents asking if his sister was all right. She was perfectly well, and subsequently her health was not affected by her brother's dream. My friend, at the time of the dream, was in his usual health—that is, not exceptionally robust, as he told me he is liable to wake up in the morning slightly depressed.

The reader interested in dreams should consult a book like the work of Mr. Havelock Ellis ("The World of Dreams," Constable & Co., 1911), where the characteristics of the dreaming state are fully discussed, and it is shown how dreams arise. The chapter on Memory in Dreams is particularly interesting; and the problem of how it is that we sometimes recognise a place or person whom we have never seen before, as recalling an old memory, is satisfactorily explained.

In the majority of cases the experience is usually recorded as if there were accurate synchronism between the two events, and as an example of this class of phenomenon I herewith quote Canon Warburton's experience:¹

"Somewhere about the year 1848 I went up from Oxford to stay a day or two with my brother, Acton Warburton, then a barrister, living at 10, Fish Street, Lincoln's Inn. When I got to his chambers, I found a note on his table, apologising for his absence, and saying that he had gone to a dance somewhere in the West End, and intended to be home soon after one o'clock. Instead of going to bed, I dozed in an arm-chair, but started up wide awake exactly at one, ejaculating, 'By Jove! he's down!' and seeing him coming out of a drawing-room into a brightly illuminated landing, just saving himself by his elbows and hands. (The house was one which I have never seen, nor did I know where it was.) Thinking very little of the matter, I fell adoze again for half an hour, and was awakened by my brother suddenly coming in and saying: 'Oh, there you are! I have just had as narrow an escape of breaking my neck as I ever had in my life. Coming out of the ballroom I caught my foot, and tumbled full length down the stairs.'" (Quoted in "Occultism and Common-Sense," p. 60.)

But there are also cases in which the percipient has the experience hours before the event, and of this class none is more striking than the dream of Mr. Lane.

Mr. Fred Lane's statement is as follows, dated Adelphi Theatre, December 20th, 1897:

"In the early morning of December 16th, 1897, I dreamt that I saw the late Mr. Terriss lying in a state of delirium or unconsciousness on the stairs leading to the dressing-rooms in the Adelphi Theatre. He was surrounded by people engaged at the theatre, amongst whom were Miss Millward and one of the footmen who attend the curtain, both of whom I actually saw a few hours after at the death-scene.

¹ In the following illustrations of dreams and waking hallucinations, I have, with one exception, reproduced examples given in "Occultism and Common-Sense." My reason for so doing is that, although there are perhaps better cases contained in "Phantasms of the Living" and the publications of the S.P.R., I think these cases, selected by Mr. Willson in his review of the evidence for telepathy up to date, are as suitable for reproduction as any.

His chest was bare and clothes torn aside. Every one who was around him was trying to do something for his good. This dream was in the shape of a picture. I saw it like a tableau on which the curtain would rise and fall. I immediately after dreamt that we did not open at the Adelphi Theatre that evening. I was in my dressing-room in the dream, but the latter part was somewhat incoherent. The next morning, on going down to the theatre for rehearsal, the first member of the company I met was Miss H., to whom I mentioned this dream. On arriving at the theatre, I also mentioned it to several other members of the company, including Messrs. Creagh Henry, Buxton, Carter, Bligh, etc. This dream, though it made such an impression on me as to cause me to relate it to my fellow-artistes, did not give me the idea of any coming disaster. I may state that I have dreamt formerly of deaths of relatives and other matters which have impressed me; but the dreams have never impressed me sufficiently to make me repeat them the following morning, and have never been verified. My dream of the present occasion was the most vivid I have ever experienced, in fact life-like, and exactly represented the scene as I saw it at night." (*Journal S.P.R.*, February 1898, p. 195.)

There are also other cases in which the percipient has the experience hours or days after the event. Of this class I may quote the following:

"Mr. Podmore relates how a neighbour of his, on the night of June 24th, 1894, dreamt that President Carnot had been assassinated. He told his family before the morning paper announcing the news had been opened. As has been pointed out, in a case of that kind it seems possible that the information may have reached the sleeper in his dreams from the shouts of a news-boy, or even from the conversation of passers-by in the street." ("Occultism and Common-Sense," p. 60.)

Waking hallucinations may be discussed as if they were dreams, for they are analogous phenomena, and the fact that the percipient is awake when he has the experience does not really affect the essence of the phenomenon. Two points in particular I wish to accentuate: firstly, that only a very small number of experiences

are verified; and secondly, that, just as in dreams, one finds the same want of synchronism between the perception of the event and the hour of its occurrence. Here are three examples :

(a) Apparently synchronous.

Lord Charles Beresford's experience as given to the S.P.R. :

"It was in the spring of 1864, whilst on board H.M.S. *Raccoon*, between Gibraltar and Marseilles, that I went into my office on the main deck to get a pipe, and as I opened the door I saw my father lying in his coffin as plainly as I could. It gave me an awful jerk, and I immediately told some of the fellows who were smoking just outside, the usual place between the guns, and I also told dear old Onslow, our chaplain.

"A few days after we arrived at Marseilles, and I heard of my father's death, and he had been buried that very day and at the time, half-past twelve in the day. I may add that at the time it was a bright, sunny day, and I had not been fretting about my father, as the latest news I had of him was that although very ill he was better. My dear old father and I were great chums, more so than is usual between a man of seventy-two and a boy of twenty, our respective ages then." (Quoted in "Occultism and Common-Sense," p. 84.)

(b) After the event.

From the *Westminster Gazette*, November 18th, 1907 :

"Instances of clairvoyance in children are remarkably numerous. A few weeks ago the Rome correspondent of the *Tribune* reported that a boy of twelve at Capua was discovered sobbing and crying as if his heart would break. Asked by his mother the reason of his distress, he said that he had just seen his father, who was absent in America, at the point of death, assisted by two Sisters of Charity. Next morning a letter came from America announcing the father's death. Remembering the boy's vision, his mother tried to keep the tale a secret, lest he should be regarded as possessed; but her efforts were vain, several persons having been present when he explained the cause of his grief."

(c) Before the event.¹

The case of Prince Duleep Singh, who writes :

"On Saturday, October 21st, 1893, I was in Berlin with Lord Carnarvon. We went to a theatre together and retired before midnight. I went to bed, leaving, as I always do, a bright light in the room (electric light). As I lay in bed, I found myself looking at an oleograph which hung on the wall opposite my bed. I saw distinctly the face of my father, the Maharajah Duleep Singh, looking at me, as it were, out of this picture, not like a portrait of him, but his real head. The head about filled the picture frame. I continued looking, and still saw my father looking at me with an intent expression. Though not in the least alarmed, I was so puzzled that I got out of bed to see what the picture really was. It was an oleograph common-place picture of a girl holding a rose and leaning out of a balcony, an arch forming the background. The girl's face was quite small, whereas my father's head was the size of life and filled the frame."

On the day following the dream he mentioned it to Lord Carnarvon, and on the evening of that day Lord Carnarvon handed him a telegram announcing the elder Prince's death. (Quoted in "Occultism and Common-Sense," p. 91.)

Of all the above experiences, that of Mr. Lane is particularly interesting and instructive, because he admits that he was frequently having dreams which never came true; and that, on the occasion of his dreaming

¹ This class of experience is apt to be recorded through ignorance of the necessity of allowing for longitude. The percipient, wishing to make the story impressive, tells how the vision was seen exactly at the moment when the event was taking place somewhere on the other side of the world. For instance, see Cases 345 and 495 in "Phantasms of the Living."

Andrew Lang, also, in "The Making of Religion" (pp. 97-104, including footnote, 3rd ed., Longmans, 1909), makes two slips, or at any rate cites two cases, which illustrate the difficulties introduced by geography. In the first a letter, posted (or rather written) in Cairo on January 27th, is said to have been received in Scotland on January 31st—an impossible feat even in these days of aeroplanes. In the second a lady in Scotland is supposed to have had a vision of a scene which was taking place in India at the moment. But this result is obtained by allowance being made for longitude the wrong way. For India is about five hours ahead of Scotland in time, and so 5 p.m. in India corresponds to about noon in Scotland; whereas the story is told as if it corresponded to 10 p.m. in Scotland.

about Mr. Terriss's death, he only spoke about it because it was a more vivid and striking experience than usual. It illustrates a psychological fact, which is not known to the ordinary man, that feelings of dread, waking hallucinations, or some sort of similar experience, are by no means uncommon in people enjoying apparently good health. The late Professor Sidgwick and the Society for Psychical Research made a census of 17,000 healthy, normal people, and found that 655 out of 8372 men, and 1029 out of 8628 women—very nearly 10 per cent. out of the whole number—had had experiences. If, then, experiences are so comparatively common, there is nothing improbable in the view that coincidence is a sufficient explanation of those few cases which may be said to "come true," and which make such an impression on the subject of the experience that they get reported—not always accurately—while the far more numerous cases which do not "come true" are never heard of again.¹ For no sane man will deny that coincidences, against the occurrence of which the chances are very remote, do occur in the world. As an example, I will give the following instance from a letter in the *Daily Graphic*, September 7th, 1905 :

"SIR,

"Among many strange coincidences which I have experienced in my time, one of the most singular

¹ Professor Newcomb, first President of the American Society of Psychical Research, wrote an article in the *Nineteenth Century* for January 1909, in which he gave the conclusions he had reached after half a century's study of the subject. He says (p. 132) :

"Taking the hundreds of coincidences as they stand, and regarding each narrative as complete in itself, the conclusion that there must have been some causal connection between the distant event or emotion and the vision looks unavoidable. But may it not be that causes already known are sufficient to account for the supposed coincidences without introducing telepathy or any other abnormal agency?" His reply is that the theory of mere coincidence still holds good. Every one who sleeps in London is surrounded by several millions of minds. Scores of people are in the throes of death every minute. How, then, do the inhabitants of London sleep undisturbed? Thousands of people have "visions" and strange dreams. In one case in a million the vision seems to have had a basis in living fact. That is the case that is investigated; the other 999,999 are neglected.

Readers interested in the subject of experimental telepathy should read an article by William Marriott in the October number of *Pearson's Magazine* for 1910, where the difficulty of guarding against collusion is explained.

For a fuller consideration of the difficulties of telepathy, and of the explanation of coincidental hallucinations, see Appendix H.

which I can recall at the moment happened to me in connection with a play which I wrote some twenty years ago for the German Reed entertainment. One of my characters was named Robert Golding, and for the requirements of the plot I had made him the sole survivor of the crew of a ship called the *Caroline*, which had been lost at sea. A few days after the production of the play I read in a newspaper an account of the shipwreck of a vessel named the *Caroline*, which had gone down with all hands, with one exception, and this exception was a man of the name of Golding. Now Golding is not at all a common name, and the circumstance of his being, both in fact and fiction, the sole survivor of the shipwrecked *Caroline*, impressed me at the time as being a coincidence of a very peculiar nature.

"Yours faithfully,

"ARTHUR LAW."

This is a case of pure coincidence about which there can be no doubt;¹ but in the realm of dreams and hallucinatory experiences it is difficult to get such a clear case. However, it will be instructive also to give here an instance of a premonitory dream, never before published, which I think will be admitted by most people to be clearly a case of coincidence; though my friend who told me his dream was so much impressed by it that I doubt if coincidence would satisfy him as an explanation.

Mr. E. W., in the year 1902, had been living in the bush (in the Pahiatua district of New Zealand) for months, and never thinking about horse-racing, when one night he had a most impressive dream of a race, in which a horse called Kanaka won. He heard the crowd shouting the name "Kanaka! Kanaka!" in a way which almost drummed it into his brain. On waking, he was so much impressed that he rode twenty or thirty miles to the nearest town, got a racing almanac, and found a horse called Kanaka was entered for the steeplechase at the Wanganui races next week. He wired to have some

¹ It is surprising how many cases of striking coincidences can be collected by any one on the look-out for them. Thus, in the *Daily Telegraph* of June 21st, 1909, it is recorded how two vessels collided in a fog off Dungeness. One was a cruiser and the other a Wilson liner, but both were named *Sappho*.

An excellent collection of coincidences is contained in a correspondence which went on in the *Daily Graphic* between August 28th and October 10th, 1905.

money put on the horse, and when the race was run the horse came in first.

Now as no two race-horses in New Zealand can have the same name, it is not very easy to get a new name for a horse. Also as Kanaka is the name given to the natives of the Pacific Islands in the neighbourhood of New Zealand, Kanaka is by no means an unlikely name for a race-horse in New Zealand. The coincidence therefore consists in the fact that this particular horse should have been racing next week and should have won. But the chances are not abnormally great against it, and if the horse had not won, the dream might have been forgotten long ago.

Also the following account of an apparently genuine spirit-photograph, which I heard Professor Barrett cite as an instance of coincidence combined with a natural explanation, is worth recording here.

In the autumn of 1891 a lady, Miss D., took a house in Cheshire for the holidays, which belonged to Lord Combermere. She had with her a few unopened packages of Paget plates, so as to take some photographs which would serve as mementoes of her stay. On December 5th, shortly after her arrival, she took a photograph of the library, and, much to her astonishment, discovered that a spirit-form, with a beard, but possessing no legs, appeared in the negative seated on the arm of Lord Combermere's own chair. Much impressed, she asked Professor Barrett to investigate the matter. He first of all found out from Miss D. that her plate had been exposed for about fifteen minutes, but she was pretty sure that she had not left the room, and that no one had come into it. Professor Barrett, however, was not satisfied; so he interviewed the servants, among whom he found a young footman of about the same proportions as the spirit-form in the photograph. But whereas the latter had a beard but no legs, the former had legs, but no beard. This young man, on cross-examination, admitted that he might have entered the library about the time the photograph was taken, but denied that he had sat on the chair. So Professor Barrett determined to take a photograph himself of the library; and, while the plate was exposed, he got a friend to come into the room, sit on the arm of the chair, look up at the camera, cross and uncross his legs, and then walk out of the room. The result was a negative containing a spirit-form almost identical with that of

Miss D.'s photograph, so that Professor Barrett was satisfied with a natural explanation of the phenomenon—viz., that the footman had come into the library and sat on the arm of the chair, then, on looking up, and seeing a camera pointed full at him, had hastily got up and gone out of the room. And Miss D., on further cross-examination, admitted that she might perhaps have left the room for a short time. The absence of legs in the spirit-form was the result of the legs being crossed and not kept still, while the head was moved just enough to give a blurred effect sufficiently lifelike to be mistaken for a beard. Now, I must draw attention to the remarkable coincidences of this story, the chances against the occurrence of which are obviously enormous. At the time that Miss D.'s photograph was being taken, Lord Combermere was being buried. And he had met his death in a rather unusual way. A dray had knocked him down in Knightsbridge, inflicting very severe injuries. He was at once taken to a hospital, where his legs were amputated and he died shortly after the operation. Lastly, as a sequel to this story, it is interesting to hear that some relative of Lord Combermere saw the photograph, and, without knowing Professor Barrett's explanation, recognised the spirit-form as that of Lord Combermere, who, I omitted to say, wore a beard. (See also article in *Westminster Gazette*, for December 9th, 1907.)

The question, then, we must ask is, whether telepathy or coincidence is the more probable explanation of dreams and hallucinations, which by no means always synchronise with the event perceived, but take place sometimes before it and sometimes after it. If it is telepathy, the influence, whatever it is, must be held to be hanging about both before, at the time of, and after the event, provided that this explanation is applied to all cases of dreams and hallucinations. But if it is not telepathy, "it may be urged," as Andrew Lang says, "many hallucinations occur and many deaths. People only remember the hallucinations which happened, or were made by erroneous calculation to seem to happen, coincidentally with the decease of the person seen. . . . The coincidental hallucinations have certainly a better chance of being remembered, while fancy is apt to exaggerate the closeness of the coincidence. Nothing can demonstrate that coincidences between death and hallucinations occur more frequently than by the

doctrine of chance they ought to do, except a census of the whole population."¹ In many cases the coincidence between the experience and the event is not so remarkable as is usually supposed. Here is a suggestive example, showing how much is left to fancy in the telling of experiences supposed to prove a supernatural explanation.

"A prominent Chicago journalist, Mr. F. B. Wilkie, reported that his wife asked him one morning in October 1885, while still engaged in dressing, and before either of them had left their sleeping-room, if he knew anyone named Edsale or Esdale. A negative reply was given, and then a 'Why do you ask?' She replied: 'During the night I dreamt that I was on the lake-shore and found a coffin there, with the name Edsale or Esdale on it, and I am confident that someone of that name has recently been drowned there.' On opening his morning paper, the first item that attracted his attention was the report of the mysterious disappearance from his house in Hyde Park of a young man named Esdale. A few days afterwards the body of a young man was found on the lake-shore." (Quoted in "Occultism and Common-Sense," p. 65.)

This story is so told as to lead one to fancy that the lady had the dream at the time that the young man was drowned. But from the details given it is impossible to say whether he died at the time of the dream or before or after. And of course it would make the coincidence much more remarkable, and so improbable as an explanation, if exact synchronism between the dream and the young man's death were established.

How much need there is for being sure of the facts and leaving nothing to fancy is shown by the above account of a spirit-photograph and also by the following story of a spirit-photograph described by Mr. Podmore.

A chapel was photographed, and when the plate was developed, a face was faintly seen in a panel of the wood-work, which the photographer recognised as a young acquaintance who had not long since met with a tragic death.

"In fact," writes Mr. Podmore, "when he told me the story and showed me the picture, I could easily see the faint but well-marked features of a handsome,

¹ See article "Psychical Research" in "Encyclopædia Britannica," Ed. X., Vol. XXXII., p. 51.

melancholy lad of eighteen. A colleague, however, to whom I showed the photograph without relating the story, at once identified the face as that of a woman of thirty. The outlines are in reality so indistinct as to leave ample room for the imagination to work upon; and there is no reason to doubt that, as in the ghost of the library, the camera had merely preserved faint traces of some intruder who, during prolonged exposure, stood for a few seconds in front of it." ("Modern Spiritualism," Vol. II., p. 125.)

Lastly, in some cases where it seems remarkable that a particular person was the subject of a dream or hallucination, it is not so remarkable as at first sight appears. A train of thought, once started, may assert its existence long afterwards by influencing the complexion of a dream or hallucination, just as a suggestion made in the hypnotic trance may produce results long afterwards. And many people have some subconscious worry and yet will tell you they have not thought of the matter for weeks. Thus, in the case of Lord Charles Beresford already quoted, he knew that his father was ill, even if he was not consciously fretting about the matter. Consequently it is quite intelligible how a subconscious train of thought may have affected him, so as to have given him a vision of his father lying in a coffin. And the fact that he had his experience about the same hour as his father was buried—not when his father died—is to my mind in favour of coincidence rather than of telepathy as an explanation of the phenomenon.

As an example of the influence of subconscious impressions, the following instance is very suggestive, and bears on the subject of trance-utterances, with which I shall deal shortly.

Stainton Moses was a clergyman and master at University College School, London, and therefore may be regarded as unlikely to have consciously deceived. He appears to have had remarkable mediumistic powers, among others, that of receiving messages from the dead. But, as Mr. Podmore points out,

"all the spirits indeed gave their names with one exception—an exception so significant that the case is worth recording. The *Pall Mall Gazette* for February 21st, 1874, contains the following item of

intelligence. 'A cab-driver out of employment this morning threw himself under a steam-roller, which was being used in repairing the road in York Place, Marylebone, and was killed immediately.' Mr. Moses was present at a séance that evening, and his hand was controlled ostensibly by the spirit of the unhappy suicide to write an account of the incident, and to draw a rough picture of a horse attached to a vehicle. The name of the dead man, it will be seen, does not appear in the newspaper account, and out of the thirty-eight spirits who gave proofs of their identity through the mediumship of Mr. Moses, this particular spirit alone chose to remain anonymous." ("Modern Spiritualism," Vol. II., p. 283.)

Even Gurney was much impressed by the unexpectedly large proportion of cases where the percipient informed him that there had been a compact between himself and the deceased person, that whoever passed away first should try to appear to the other. "Considering," he adds, "what an extremely small number of persons make such a compact compared with those who do not, it is difficult to resist the conclusion that its existence has a certain efficacy."¹

Now it is clear, from the mere fact that such a compact has been made, that the parties thereto have been thinking and worrying over the subject of life after death, and so it is not remarkable if this train of thought colours an hallucination or neurasthenic feeling of uneasiness, which happens to coincide more or less with the death of the other party to the compact.

As regards experimental cases of telepathy, I have never yet seen any evidence such as will satisfy a scientific standard of truth, though some of the results are distinctly striking. Yet in experiments carried out for this purpose such a proof should be possible. Professor and Mrs. Sidgwick—and later Miss Johnson—carried on a long series of experiments in 1889-1891 in order to test the possibility of transferring a mental picture from one mind

¹ See "Phantasms of the Living," by Gurney, Myers, and Podmore, Vol. II., p. 66. The paragraph continues: "The cause of this might be sought in some quickening of the agent's thought in relation to the percipient as the time for fulfilment approached. But . . . the efficacy of the compact may quite as readily be conceived to depend on its latent place in the percipient's mind as in the agent's."

to another. Anyone who reads the details will see how far from conclusive were the results.¹

Of professional "thought readers" the Zancigs may be quoted as leading exponents of the art, though they were careful not to use the word "telepathy," but restricted themselves to saying that they found they had a wonderful power of reading each other's thoughts, and that they had developed this power by practice.² Their

¹ See *Proc. S.P.R.*, Vol. VI., p. 398, and Vol. VIII., p. 554. The results at once became poorer if the agent and percipient were separated by a wall or a floor. However, it is only fair to point out that this fact does not necessarily exclude telepathy being given as the explanation of the more or less successful results when agent and percipient were in the same room. For, as Podmore says: "It seems scarcely possible to attribute these results to hearing, with whatever degree of hyperæsthesia we may credit Miss B.; but it should be mentioned that a further series of four hundred trials, in which Miss B. was separated from the agent by two closed doors instead of one, or was placed in a different building, yielded practically no success. In an experiment depending on purely physical conditions we should, no doubt, be justified, after such a failure, in inferring that the results were directly affected by the distance or the intervening obstacles, and were therefore due to some mechanical cause, which had escaped the attention of the observer. But in this investigation we have of course to deal with very delicate living machinery, and it seems not improbable that the obstacle in these later trials was not the second closed door, but Miss B.'s weariness, or the more tedious nature of the experiments themselves, owing to the difficulty of communication between the experimenters, or Miss B.'s preconceived belief that under such stringent conditions she must fail. A self-suggestion of the kind, as is well known, may be all powerful with hypnotised persons. For since there are numerous later experiments, in which ideas have apparently been conveyed telepathically a much greater distance, a distance in some cases measured by hundreds of miles, it seems incredible that the slight alteration in the physical conditions can really have had anything to do with the success. But the circumstance will serve to illustrate the difficulties attending experimental investigation in these obscure psychological by-paths." ("Telepathic Hallucinations," p. 53.)

In the more recent experiments of Miss Miles and Miss Ramsden in 1907 it is surprising, or at least unfortunate, that, if they have such a telepathic faculty as is claimed for them, they have not performed more experiments. For those recorded do not amount to fifty; and, though the complete failures are not numerous, there are several which it is difficult to call successful. (See *Proc. S.P.R.*, Vol. XXI., p. 60, and *Journal S.P.R.*, June, 1908.)

² In an interview, Mr. Zancig is reported, in the *Daily Mail* for December 6th, 1906, to have said: "I can't explain it; I don't know why we can do it, nor how we do it; all I know is that within certain lines we can do certain things which nobody else seems able to do as well. It is not clairvoyance, has no manner of connection with it; it is not anything but transference of thought or brain

performance included the following type of experiment. While Mr. Zancig stood among the audience and held some object handed to him by one of the audience, Mrs. Zancig on the stage described it. Again, if Mr. and Mrs. Zancig were provided with two copies of the same book, and if Mr. Zancig concentrated his mind on a passage in his copy of the book, Mrs. Zancig could read the passage out of her copy. Their performance was certainly extremely clever. Mrs. Zancig succeeded in rightly naming the most unlikely things handed to her husband, so that there are only two possible explanations—viz., telepathy or the use of a code. Which is the more probable explanation may be gathered from the following facts and criticisms. (a) When they came to Cambridge they were provided with two copies of a book, which, unlike most books, had unnumbered pages. Under these conditions Mrs. Zancig was unable to reproduce the passage her husband was thinking of. (b) Stuart Cumberland, in the *Daily Mail* of December 8th, 1906, describes some of the phenomena he witnessed at a performance; among others, how a paper cracker cap was handed to Mr. Zancig. "Mrs. Zancig pronounced it to be a 'dress-sample' at first, and then, on being told she was wrong, said it was a cap (not a paper cap). Now, a brain-wave could not have communicated 'dress-sample' by any chance in mistake for a rolled-up paper cap. Mr. Zancig might have been in doubt for a moment, but could not have sent the brain-wave message of 'dress-sample.' Again, a gold medallion was called at first a 'hat.' Mr. Zancig must have grasped the nature of the article in an instant, and 'hat' on the brain-wave theory is absurd,

impressions from one to the other; that is all we really know about it. And, I repeat, we attained our present imperfect power by long, hard practice." He also reiterated his previous statement that the object of his wife and himself was to entertain and make a little money. But although his object was to make money, he never would accept any of the challenges offering to pay him large sums of money, if he and his wife succeeded under "test" conditions. Thus, the *Throne* for February 16th, 1907—after quoting Mr. Zancig's words: "If I were in America and my wife was left in South Africa, she could read my thoughts as accurately as she could on the stage, if only she knew at what time the transference of thoughts was to be made"—offered to pay £5,000 to King Edward's Hospital Fund, or £100 to Mr. Zancig himself, if some words written by the Duke of Argyll on a card could be transmitted by Mr. Zancig to Mrs. Zancig "under simple conditions made by ourselves."

For a fuller criticism of the Zancigs' performance, see William Marriott's article in *Pearson's Magazine* for October, 1910.

but a misread, over-hasty code-word explains all." (c) Mr. M. H. Spielmann, in the *Tatler* for January 23rd and 30th, 1907, also gives excellent examples of where the code fell short, and further mentions a case strongly suggestive of collusion. He says: "On January 3rd, as reported in the *Daily Mail*, a cigarette case was handed to Mr. Zancig, and was at once stated to be a cigarette case containing seventeen cigarettes. This was before it was opened, so that the number was unknown to Mr. Zancig, who states formally and precisely that he can only transfer knowledge he himself possesses. As there is no suggestion that the owner could similarly transfer his thoughts, even if he was aware of the number of cigarettes, the whole occurrence detaches us from the idea of thought transference and lands us in the realm of collusion."

(d) Sir Oliver Lodge, in the *Daily Mail* of December 6th, 1906, is reported to have said: "For my part, I am inclined to think that the performance is the result of a trick. In all the cases of thought reading which we have investigated and considered genuine hitherto, the influence has not been under the control of the mediums and capable of being produced whenever desired, but has been a spontaneous and involuntary one. That is what leads me to suspect the present case."

I have dwelt at almost unnecessary length on the Zancigs—seeing that there can be no reasonable doubt they employed a code—because they excited a great deal of interest at the time and took in completely the average man interested in the occult, but with no special training for its investigation. Thus, W. T. Stead wrote in the *Review of Reviews* (Vol. XXXIV., 592, December 1906): "I can say without hesitation that the Zancigs at the Alhambra Music Hall give a more conclusive demonstration of the power of telepathy than is to be found in all the literature of the subject. On each of the two occasions on which I experimented with them in private, the results were the same as those to be witnessed by anybody at the Alhambra. The only difference was that at the experiments in private I had ample opportunity to impose conditions which rendered fraud or trickery impossible." Mr. Stead's attitude is also typical of the man who believes in a medium after he has been exposed, because next month, finding that the Zancigs had meanwhile been more or less exposed by professional conjurers, he wrote: "They do not claim that they use telepathy. They shrink from any explanation, and I shrewdly suspect they occasionally

use code-signals and other little tricks in order to give investigators something to go upon, and so keep up the interest in their show." (*Review of Reviews*, Vol. XXXV., 46, January 1907.)

I now come to those cases of supposed telepathy in which, by means of automatic writing or trance utterances, certain mediums or clairvoyants claim to transmit messages from the dead. I have already referred to Mr. Stainton Moses, and pointed out that of thirty-eight spirits who revealed their identity through his agency, *that one alone* remained silent whose name Mr. Moses did not know beforehand. Assuming Mr. Moses to have been what I may call a genuine medium, this instance suggests very strongly that on one occasion at any rate Mr. Moses was himself the unconscious victim of self-deception, and that the information supplied by his hand was information he had already gathered from the *Pall Mall Gazette* or other paper—that is, in the ordinary way through his senses.¹ It is interesting to point out, for those who believe in telepathy between living minds, that this very belief cuts at the root of disembodied spirits being able to prove their existence. Thus Andrew Lang says :

"As to cases of isolated phantasms of the dead, it is admitted on all hands that sane and sober people may have subjective hallucinations of the presence of living friends not dying or in any other crisis. Obviously, then, the appearance of a dead person may equally be an empty hallucination. Thus a member of the House of Commons, standing at the entrance of a certain committee-room, saw another member, of peculiar aspect and gait, pass him and enter the room,

¹ I have already pointed out in the last chapter, in a note on p. 62, how planchette reproduced some information known to a friend of mine which he had forgotten.

Another excellent example of the same phenomenon is referred to by Podmore as follows : "A writer in the *North American Review*, April 1855, relates that a medium of his acquaintance, a lady of 'transparent ingenuousness,' produced three poems purporting to have been written by the spirit of John Milton. One of these poems was headed 'A Latin Sonnet'; it was not a sonnet, nor was it written in Latin, or in any other language, but it had throughout a Latin sound, and the terminations were all Latin. The explanation, no doubt, is to be found, as the reviewer suggests, in the fact that the lady's father had for years prepared young boys for college, and she herself had probably in her youth often heard Latin read aloud." ("Modern Spiritualism," Vol. I., p. 262.)

his favourite haunt. Several hours passed before the percipient suddenly recollected that the other member had been dead for some months. Even superstition cannot argue that this appearance was a ghost. . . . Telepathy cuts both ways. It is, if accepted, a singular discovery, but it throws an enormous burden of proof on a 'ghost,' who wants to establish his identity. In the same way telepathy cuts at the root of 'clairvoyance.' For the same reasons the information nominally given by 'spirits' of the dead through the mouth or by the automatic writing of Mrs. Piper may be explained by telepathy from the living who knew the facts. In Dr. Hodgson's present opinion the dead do communicate through Mrs. Piper. The published evidence does not seem to justify this conclusion, which is not accepted by Mrs. Piper herself." ¹

Mrs. Piper is perhaps the most famous of this kind of medium; for not only does she transmit messages from

¹ "Encyclopædia Britannica," Ed. X., Vol. XXXII., p. 52. Undoubtedly the messages received both from Mrs. Piper's "trance-controls," and also through the writing of other automatists, such as Mrs. Verrall and Mrs. Holland, cannot be dismissed as unworthy of very serious investigation, seeing that they contain interesting examples of superficially inexplicable subconscious phenomena and constitute what Professor Barrett calls the "small residue of phenomena," which he finds inexplicable on any other hypothesis than that of discarnate human beings, that is to say, the spiritualistic hypothesis (see Introduction to "Occultism and Common-Sense," by Beckles Willson). Thus, one of Mrs. Piper's best successes occurred with Sir Oliver Lodge, who handed to her a watch which had belonged to an uncle of his named Jeremiah. Thereupon facts in the early life of this uncle were mentioned, which, according to Sir Oliver Lodge, were unknown to any one present at the sitting (see "Survival of Man," p. 223). However, even if we exclude telepathy as an explanation, there are great difficulties about accepting the spiritualistic hypothesis. For it would imply that a departed spirit more or less haunts any property which had belonged to it on earth, in just the same way as the spirit of Mrs. Shaler's aunt talked through Mrs. Piper, when she held in her hand a seal which had belonged to the departed lady, as described on the next page. Thus, to my mind, preparation for the sitting on Mrs. Piper's part, or hints unconsciously given by the sitter, still appear much the most probable explanations, even though we are told that the normal Mrs. Piper is much respected by all her friends, and has never been detected in fraud, and that Dr. Hodgson for some time employed detectives. But it is to be remembered that an adequate *scientific* investigation of Mrs. Piper has never been made, and that the moral standard of Mrs. Piper's secondary consciousness may be very different from that of her normal life.

the dead, but she professes to be able to supply information about people unknown to her.

She has convinced many apparently keen observers; and there is no question of the difficulty of invoking anything so simple as fraud to explain the source of the knowledge occasionally exhibited by her trance personalities. But in spite of this, there is no satisfactory proof that fraud is always impossible. This possibility is well expressed in a letter from Professor Shaler to Professor James as follows:¹

"MY DEAR JAMES,

"At the sitting with Mrs. Piper on May 25th I made the following notes.

"As you remember, I came to the meeting with my wife; when Mrs. Piper entered the trance-state, Mrs. Shaler took her hand. After a few irrelevant words, my wife handed Mrs. Piper an engraved seal, which she knew, though I did not, had belonged to her brother, a gentleman from Richmond, Virginia, who died about a year ago. At once Mrs. Piper began to make statements clearly relating to the deceased, and in the course of the following hour she showed a somewhat intimate acquaintance with his affairs, those of his immediate family, and those of the family in Hartford, Connecticut, with which the Richmond family had had close social relations. The statements made by Mrs. Piper, in my opinion, entirely exclude the hypothesis that they were the results of conjectures, directed by the answers made by my wife. I took no part in the questioning, but observed very closely all that was done.

"On the supposition that the medium had made very careful preparation for her sittings in Cambridge, it would have been possible for her to have gathered all the information which she rendered by means of agents in the two cities, though I must confess that it would have been rather difficult to have done the work.

¹ I have quoted this letter because it summarises rather well the impressions made on an unbiased observer, and because it was used for the same purpose by Podmore in "Modern Spiritualism," but it should be realised that, while giving a fairly typical account of the kind of information which Mrs. Piper imparts to her sitters, it gives no idea of the fishing, guessing, and other modes of acquiring information that are employed by the entranced medium. Only a stenographic or verbatim report can do this.

"The only distinctly suspicious features were that certain familiar baptismal names were properly given, while those of an unusual sort could not be extracted, and also that one or two names were given correctly as regards the ceremony of baptism or the directory, but utterly wrong from the point of view of family usage. Thus the name of a sister-in-law of mine, a sister of my wife, was given as Jane, which is true by the record, but in forty years' experience of an intimate sort I never knew her to be called Jane; in fact, I did not at first recognise who was meant.

"While I am disposed to hold to the hypothesis that the performance is one that is founded on some kind of deceit, I must confess that close observation of the medium made on me the impression that she was honest. Seeing her under any other conditions, I should not hesitate to trust my instinctive sense as to the truthfulness of the woman.

"I venture also to note, though with some hesitancy, the fact that the ghost of the ancient Frenchman who never existed, but who purports to control Mrs. Piper, though he speaks with a first-rate stage French accent, does not, so far as I can find, make the characteristic blunders in the order of his English words which we find in actual life. Whatever the medium is, I am convinced that this "influence" is a preposterous scoundrel.

"I think I did not put strongly enough the peculiar kind of knowledge that the medium seems to have concerning my wife's brother's affairs. Certain of the facts, as, for instance, those relating to the failure to find his will after his sudden death, were very neatly and dramatically rendered. They had the real-life quality. So, too, the name of a man who was to have married my wife's brother's daughter, but who died a month before the time fixed for the wedding, was correctly given, both as regards surname and Christian name, though the Christian name was not remembered by my wife or me.

"I cannot determine how probable it is that the medium, knowing she was to have a sitting with you in Cambridge, or rather a number of them, took pains to prepare for the tests by carefully working up the family history of your friends. If she had done this for thirty or so persons, I think she could, though with some difficulty, have gained just the

kind of knowledge which she rendered. She would probably have forgotten that my wife's brother's given name was Legh, and that of his mother Gabriella, while she remembered that of Mary and Charles, and also that of a son in Cambridge, who is called Waller. So, too, the fact that all trouble on account of the missing will was, within a fortnight after the death of Mr. Page, cleared away by the action of the children, was unknown. The deceased is represented as still troubled, though he purported to see just what was going on in his family.

"I have given you a mixture of observations and criticism; but let me say that I have no firm mind about the matter. I am curiously and yet absolutely uninterested in it, for the reason that I don't see how I can exclude the hypothesis of fraud, and until that can be excluded, no advance can be made.

"When I took the medium's hand, I had my usual experience with them—a few preposterous compliments concerning the clearness of my understanding, and nothing more." (*Proc. S.P.R.*, Vol. XIII., pp. 524, 525.)

Fraud is indeed so possible that one cannot be too careful about being convinced by evidence associated with professional mediums.¹ As Podmore says in his "Modern Spiritualism" (Vol. II., footnote on p. 339): "There is a belief, no doubt well founded amongst the more clear-headed American Spiritualists, that there is an elaborate organisation for obtaining and interchanging information thus acquired amongst all the members of the guild. It is perhaps in this way that we may explain the peculiar good fortune of well-known Spiritualists in obtaining 'tests.' Some of Mrs. Piper's sitters had previously visited other mediums, but if the precautions taken to prevent her knowing the names of the sitters were effectual, as they probably were in most cases, it seems hardly likely that she could have utilised any information thus gained." And, though Podmore's atti-

¹ In the case, however, of Mrs. Piper, my own attitude towards her powers is that there is no need to invoke the assistance of an "information-bureau" or of agents employed by her, to explain her success; and, in addition to this, the testimony in favour of her honesty is so unanimous and of so good a quality, and in some cases the difficulty of collecting information without the sitter's assistance was so great, that any *organised* system of fraud may be dismissed as a most improbable hypothesis.

tude on the subject of Mrs. Piper is summed up in the following sentence: "The conviction entertained by those who are best qualified to judge that Mrs. Piper's information was not obtained by such methods is based partly on the precautions employed, partly on the nature of the information itself," yet there are definite suspicious circumstances about some of her sittings apart from the indefinite impression of fraud produced by a "control" like Dr. Phinuit. The best examples of these within my knowledge occurred on the following occasions:

(1) At a sitting given by Mrs. Piper to Professor Hyslop, an uncle of his, named James McClellan, professed to communicate with him. This uncle's father was named John McClellan. Now, among other information the "control" said that his father had gone to the war and lost a finger. These statements were not true of James McClellan's father, but were true of a neighbour with the same name, who had lived within a few miles of James' father; and this other John is mentioned in the published history of the county. (*Proc. S.P.R.*, Vol. XVI., pp. 110, 470, 535.)

(2) At a sitting given by Mrs. Piper to Professor Bowditch and his sister-in-law in 1886 (this was after Mrs. Piper had been unable to keep a first appointment owing to indisposition) they heard a number of spirit-names, "Sally," "Jane," etc., which meant nothing to them. Finally Mrs. Piper said: "I hear a name,—well—well—Dixwell—the first name is Anna," and she gave a more or less accurate account of the death in Paris of a cousin of Professor Bowditch, named Anna Dixwell, adding: "Tell my mother, your sister, that I am well and happy." This she repeated. Then followed: "Your father is here, and he wishes me to tell you that he is pleased with you, and glad you are doing so well. I see him sitting with his books around him."

The connection of all this with Professor Bowditch was not apparent; but on the way home it occurred to his sister-in-law that Mrs. Piper had mistaken Professor Bowditch for his uncle, Henry I. Bowditch, to whom the remarks did apply. (*Proc. S.P.R.*, Vol. VIII., p. 7.)

(3) Podmore writes in his last book, "The Newer Spiritualism," p. 161:

"Amongst recent communications from the entranced Mrs. Piper the attempts at translating the

Latin message—to be discussed later—point most strongly to what may be called illegitimate sources of information. As will be seen, the translations given in the trance are difficult to reconcile either with the theory of communications from the dead, or that of telepathy from the living. Another suspicious incident is the mistranslation of *mori*."

On the other hand, it is often said, as a strong point in favour of Mrs. Piper's genuineness, that Dr. Hodgson, after years of investigation, pronounced his conviction that she was controlled by "discarnate intelligences," and that he was an observer of exceptional acuteness, as shown by his exposure of Madame Blavatsky. But even at that earlier time he declared that whatever prepossessions he may have had "were distinctly in favour of occultism and Madame Blavatsky"; so that he may not unfairly be considered as slightly biased in favour of a super-normal explanation of the phenomena he was investigating, phenomena in the record of which auto-suggestion is particularly liable to blind the eyes. Indeed, he may almost be compared to the members of the Commission who were sent out by the S.P.R. in 1908 to Italy to investigate the supernatural powers of Eusapia, and who, in spite of considerable personal knowledge of and skill in conjuring, were taken in by her superior skill, as already described. In any case, whatever be the explanation of Mrs. Piper's successes, there is one striking coincidence about many of them, namely, that very little convincing evidence is afforded at the first sitting, and that the success is often associated with knowledge which slowly accumulates and only assumes an apparently super-normal character in the course of subsequent sittings, as, for example, in the case of Sir Oliver Lodge's Uncle Jerry, in the "Lethe Incident," etc.¹

And further, the fact that Mrs. Piper often holds the hands of her sitter lends probability to the view that in the trance she has a faculty for reading subconscious muscular expressions of emotion or thought—analogous to, if much more highly developed than, the faculty by which professional thought-readers respond to the guidance of any one who concentrates his mind on a hidden object—and that by a skilful process of "guessing" and

¹ The "Lethe Incident" is described in *Proc. S.P.R.*, pt. ix., Vol. XXIV., p. 86, March 1910: "the case of Uncle Jerry" in *Proc. S.P.R.*, Vol. VI., pp. 498-550.

"fishing" she sometimes worms more out of her sitters than appears to them conceivable.¹

As a summary, then, of the phenomena exhibited in Mrs. Piper's trances, we may say that, for the man who has some definite standard of truth, they cannot be cited as a proof of the existence of discarnate spirits. For, to quote what is practically the last utterance of Podmore on the subject: "The trance personalities have never told us anything which was not possibly, scarcely anything which was not probably, within the knowledge of some living person. None of the 'posthumous' letters have yet been read. . . . Nor has the Hodgson Control yet revealed the secret of his cipher." ("The Newer Spiritualism," p. 312.) And as regards giving telepathy as an explanation, I think that this chapter will have shown that, while the evidence is so conflicting, an agnostic attitude is still the most reasonable; though, even if it is ultimately necessary to admit the existence of knowledge obtained by Mrs. Piper otherwise than through her five senses, and invoke telepathy as an explanation, this means nothing more than believing in the existence of vibrations in the ether, resulting from and acting on nervous matter. Such a faculty, if it exists, might perhaps be compared with the "home-ing instinct" in birds, and might be regarded as a vestigial instinct inherited from our animal ancestors.

¹ Such, at any rate, is the opinion of many of Mrs. Piper's sitters, who had no reason for being biased in favour of the super-normal. Thus Dr. C. wrote the following note on his sitting, held in Prof. Lodge's house on December 23rd, 1889 (*Proc. S.P.R.*, Vol. VI., p. 497): "The trance state seemed natural; but had more voluntary movement than I had ever seen in an epileptic attack. The entire change in Mrs. Piper's manner and behaviour is unlike an intentional effect, and it is possible she herself believes that the conditions mean something outside of herself. With regard to the results, the misses seem to balance the hits, and the 'reading' is not so impressive as the 'sitting.' After reading over your notes, I think they consist of a certain amount of thought-reading and a large amount of skilful guessing."

APPENDIX A

FROM *The Times Weekly Edition, Supplement*, June 25th,
1909

ON THE SUBJECT OF "SPIRIT" PHOTOGRAPHY

THE photographic world has once more had its attention drawn to the claims of what is called "spirit" photography; and a committee has been formed, under the auspices of the *Daily Mail*, which has been investigating the subject, with the inevitable result. Three spiritualists and three expert photographers formed the committee. The three spiritualists reported that the photographers were not in a proper frame of mind to succeed in obtaining "spirit" photographs. The photographers announced that no scrap of evidence was put before them to show that "spirit" photography was possible. But they went further, and herein lies the feature of this particular investigation. They invited the submission to them of "spirit" photographs, and, having examined these critically, they report that not only did they not testify to their supernatural production, but that they bore on the face of them circumstantial evidence of the way in which they had been produced; in other words, that the prints were not mysteries, but self-revealed "fakes."

Those who are not photographers may well wonder how so very definite a pronouncement can be made. A recent case will show how photographs can be made to tell a good deal more than is to be seen by a mere glance at them.

Let us imagine a man in a frock coat, buttoned over towards the right, as is customary with frock coats, and with one of his hands thrust into the breast after the manner of the first Napoleon. Let us imagine him next with the same coat on, but buttoned over to the left, with the other hand thrust into it. Imagine any one set the task of photographing him in these two positions, so that every crease, every fold, every thread in the texture of the coat, every hair on his head (the parting shifted over automatically also), every minute detail in the one photograph shall be the exact counterpart of

every minute detail in the other. No human power could do such a thing, though, no doubt, a very close resemblance might be got.

If two such photographs were shown to a photographer, he would say that beyond all doubt they must have been made from the same negative, the only difference being that one was reversed, right for left, in the process, as may easily be done by photography. Now, there have been "spirit" photographs in which the "spirit" appeared in such a frock coat, and in two of them, although the "material" part of the picture was different, the "spirit" was alike in both exactly as already described. A difference of the hundredth part of an inch in any detail of the "spirit" would have been manifest directly the two negatives were put film to film; but the registration was exact. Yet one purported on the face of it to be a view of a "spirit" with his right hand thrust into his coat, and the other another view of the same spirit, but this time with his left hand in that position.

The explanation of the trick, for it is nothing else, is absurdly simple. If in taking a portrait we can introduce inside the dark-slide which holds the plate, and just in front of the plate, a positive on glass or film of the "spirit" form, the light which reaches the plate when the lens is uncapped strikes through that positive and prints a negative of it on the plate at the same time that it prints a negative of the real sitter. As dark-slides are usually made as thin as possible, it is more convenient to have that positive on a thin celluloid film instead of on glass, and if it is put in one case with the one side, and in the other with the other, turned towards the plate, we shall get a right-handed "spirit" in one, and a left-handed "spirit" in the other, with all the details in each exactly agreeing. It is the easiest thing in the world to arrange a dark-slide which will look perfectly innocent and yet have the positive within it, so that it will give a "spirit," either on every plate, or on some, at the will of the photographer.

The ordinary precautions which are said to be taken against trickery in such a case are no protection at all. The plates are bought in the ordinary way, initialled to make sure that the plates so bought are those that are exposed, and whoever makes the test may see them put into the slide and exposed, and may take them out and develop them. Yet the "spirit" forms appear.

It might be thought strange that the mistake of putting the same spirit on two plates, one the right way round, and the other reversed, would not have been guarded against, since it at once gives a clue as to the way in which the thing has been done. But no inconsistencies of this kind seem to have the slightest effect upon believers, and many "spirit" photographs which are accepted without question by those who like such things are far cruder in the way in which they reveal their origin.

For instance, when a plate is exposed in a camera, it is held in position either against a wooden rebate all round the dark slide, or by catches or pins. If the slide has a rebate, it has no catches or pins, and vice versa; in fact, the two methods are quite distinct, and indicate dark slides of an entirely different pattern. The plate is put in from the front when it is held by catches, from the back when it is held by a rebate. Whatever the method, it leaves its mark upon the negative, and the photographer to whom it was shown would have no difficulty in deciding at once whether one method or the other had been used. Yet some of the spirit negatives which are accepted as bearing "supernormal" figures upon them actually bear the plainest indications on their margins that the one exposure has been made in both forms of slide. The edges of the plates are marked both by a rebate and by catches. It does not follow that the plate itself has been exposed twice; it merely indicates that it has acquired the extra marks from the positive of the spirit, the spirit form having been photographed originally in a dark slide of a different pattern. It might be supposed that the very slight precautions which would suffice to obliterate one set of marks would have been taken in common prudence; but, so confident are those who produce such things in the credulity of their customers, that no trouble on such a score seems to be required. In the same way, marks which are incontestable evidence to a photographer that these pictures are due to some form of double printing, such as has been described above, are often left on; a "spirit" has even had its picture cut up into little squares or dots by the action of a half-tone screen, showing that it was a copy of some "process" illustration. Yet it has been accepted as genuine.

There are other very significant features in these

"spirit" photographs. While the sitter or medium is photographed direct upon the plate, the "spirit," as already shown, is put on by a more round-about process. It is first photographed, and a negative is obtained in the usual way. A positive on glass or film is made from this, and this is used to print a "negative" picture on the plate as described above. Each one of these operations involves a certain loss of quality, or, as the photographer calls it, a degradation of tone. It is this which enables any one of experience to tell at once whether a photograph was taken from life or was copied from another photograph. Now, almost without exception in these "spirit" photographs, while the material sitter is shown as would be expected when photographed directly, the "spirit" picture has the degradation which indicates that it is a copy and not taken direct, as it purports to be. In many cases, too, the material sitter is lit from the right, the "spirit" lit from the left. There have been stereoscopic pictures in which, although the material sitter showed the stereoscopic relief, the "spirit" form showed no relief, but appeared simply as a flat surface, though the folds of its garments cast shadows.

There is no need to go further into these things. A whole chain of detailed circumstantial evidence is carried upon the face of these photographs, which those who accept them have to explain, before they have any basis for demanding an experimental test of their supernatural productions.

APPENDIX B

THE REV. WILLIAM STAINTON MOSES

QUOTATION from "Modern Spiritualism" showing how easy it was for him to escape detection, and how much evidence there is that he produced his phenomena by trickery:

"From this brief sketch of the physical manifestations it will be clear that the mediumship of Stainton Moses in this aspect, at all events, added nothing to the evidence for Spiritualism. If we leave out of the account for the moment the difficulties involved in the supposition that a man of his character and antecedents should lend himself to trickery, there is

nothing in the manifestations produced in his presence to suggest any other explanation. All that was done has been done again and again by fraudulent mediums and naughty children, and done under conditions much less favourable. Stainton Moses had the advantage of darkness more complete than that afforded to most mediums. For the greater part of the long period under review his only sitters were two old friends, to whom the bare suspicion of dishonesty on the part of their tried and trusted fellow-worker, the man whom they had selected to be the tutor of their son, would have seemed a monstrous thing. No tests of any kind were imposed, and the controlling spirit, speaking through the mouth of the medium, sternly repressed any attempt in that direction. The introduction of strangers was also discouraged; and, though a few favoured persons were admitted later, their presence seemed to exercise an injurious influence over the physical manifestations, so that the phenomena were often limited to elevating discourse from 'Imperator.'

"It was hardly to be expected that in a circle constituted as described actual proofs of fraud should come to light. But it is noteworthy that even in the records written by the Speer family, under the influence of a strong prepossession in favour of the medium, there are many suspicious circumstances. Thus, Dr. Speer records that on one occasion, stretching out his hand in the dark, he encountered another hand in the middle of the table, where no hand should have been, the medium ostensibly sitting at some distance from the table. The spirit lights are described as hard, round, and cold to the touch, a description consistent with the supposition that they consisted of round bottles of phosphorised oil. At some of the early sances Dr. and Mrs. Speer were requested to rub their hands together quickly when the lights appeared, in order to generate power—a device which might naturally suggest itself to a trickster as a convenient means of checking the impulses of unseasonable curiosity. It is to be noted, further, that hands, and occasionally a forearm, were seen holding the lights. Again, in a passage to which my attention was directed by Dr. Hodgson, we have the record—by the medium himself—of what appears to have been a miscarriage to the

bottle of phosphorised oil. After describing the appearance of several large lights, Mr. Moses writes: 'Suddenly there arose from below me, apparently under the table, or near the floor, right under my nose, a cloud of luminous smoke, just like phosphorus. It fumed up in great clouds, until I seemed to be on fire, and rushed from the room in a panic. I was fairly frightened, and could not tell what was happening. I rushed to the door and opened it, and so to the front door. My hands seemed to be ablaze and left their impress on the door and handles. It blazed for a while after I had touched it, but soon went out, and no smell or trace remained. . . . There seemed to be no end of smoke. It smelt distinctly phosphoric, but the smell evaporated as soon as I got out of the room into the air.' "

Again, note this significant episode, recorded by Mr. Charlton Speer as one of the most satisfactory "test" incidents in his experience:

"We were sitting one night as usual, and I had in front of me, with my hand resting upon it, a piece of notepaper with a pencil close by. Suddenly Stainton Moses, who was sitting exactly opposite to me, exclaimed, 'There is a very bright column of light behind you.' Soon afterwards he said that the column of light had developed into a spirit form. I asked him if the face was familiar to him, and he replied in the negative, at the same time describing the head and features. When the séance was concluded, I examined my sheet of paper, which my hand had never left, and found written on it a message and the signature." And Mr. Podmore says: "It is perhaps fair to assume that when Mr. Speer's attention was thus directed to what was going on behind his back, he, momentarily at least, diverted his attention from the paper on which his hand rested" (Vol. II., pp. 280-282).

APPENDIX C

ACCOUNT OF A SÉANCE AT HACKNEY BY SIR W.
CROOKES, F.R.S.

"I PASS on to a séance held last night at Hackney. Katie never appeared to greater perfection, and for nearly two hours she walked about the room, conversing familiarly with those present. On several occasions she took my arm when walking, and the impression conveyed to my mind that it was a living woman by my side, instead of a visitor from the other world, was so strong that the temptation to repeat a certain celebrated experiment became almost irresistible." (This refers to an occasion on which a sitter had embraced a "spirit.") "Feeling, however, that if I had not a spirit, I had at all events a lady close to me, I asked her permission to clasp her in my arms, so as to be able to verify the interesting observations which a bold experimentalist has recently somewhat verbosely recorded. Permission was graciously given, and I accordingly did—well, as any gentleman would do under the circumstances.

"Mr. Volckman will be pleased to know that I can corroborate his statement that the 'ghost' (not 'struggling,' however) was as material a being as Miss Cook herself. But the sequel shows how wrong it is for an experimentalist, however accurate his observations may be, to venture to draw an important conclusion from an insufficient amount of evidence.

"Katie now said she thought she should be able this time to show herself and Miss Cook together. I was to turn the gas out, and then come with my phosphorus lamp into the room now used as a cabinet. This I did, having previously asked a friend, who was skilful at shorthand, to take down any statement I might make when in the cabinet, knowing the importance attaching to first impressions, and not wishing to leave more to memory than necessary. His notes are now before me.

"I went cautiously into the room, it being dark, and felt about for Miss Cook. I found her crouching on the floor. Kneeling down, I let air into the lamp, and by its light I saw the young lady, dressed in

black velvet, as she had been in the early part of the evening, and to all appearance perfectly senseless. She did not move when I took her hand and held the light close to her face, but continued quietly breathing.

" Raising the lamp, I looked around and saw Katie standing close behind Miss Cook. She was robed in flowing white drapery, as we had seen her previously during the séance. Holding one of Miss Cook's hands in mine, and still kneeling, I passed the lamp up and down, so as to illuminate Katie's whole figure, and satisfy myself thoroughly that I was really looking at the veritable Katie whom I had clasped in my arms a few minutes before, and not at the phantom of a disordered brain. She did not speak, but moved her head and smiled in recognition. Three separate times did I carefully examine Miss Cook crouching before me, to be sure that the hand I held was that of a living woman, and three separate times did I turn the lamp to Katie and examine her with steadfast scrutiny, until I had no doubt whatever of her objective reality. At last Miss Cook moved slightly, and Katie instantly motioned me to go away. I went to another part of the cabinet and then ceased to see Katie, but did not leave the room till Miss Cook woke up, and two of the visitors came in with a light " (*Spiritualist*, April 3rd, 1874).

APPENDIX D

ON THE NEED OF A CONJURER'S TRAINING FOR UNDERTAKING PSYCHICAL RESEARCH

(Quotation from " Modern Spiritualism," Bk. IV., ch. ii.)

" It is hardly necessary to point the obvious moral. In the last chapter we learnt something of the treachery that lies in the dark séance, and the blind guidance of the sense of touch. From the present study we may gather indications of the less obvious, and, to many persons, still incredible shortcomings of the most trusted and least trustworthy of our senses. The untrained eye is no match for the trained hand of the conjurer. The kind of observation demanded of the investigators at a spiritualistic séance—an observation which is alive to the various

artifices employed to distract it, and which, if not actually unremitting, is at least aware of its own lapses—is a quality not called for and not exercised in the investigations of the physical laboratory, and not to be acquired even to a moderate extent, except by education of a very special kind. As we have seen, even professional conjurers may prove deficient in this special qualification. The labours of Mr. Davey and Dr. Hodgson should compel us to admit that no evidence for the so-called 'physical' phenomena of Spiritualism can be regarded as satisfactory, which at any point depends upon continuous observation on the part of the investigator " (pp. 221, 222).

The above paragraph comes after a passage containing a practical illustration of the need of a conjurer's training for undertaking psychical research. For the author of "Modern Spiritualism" describes what he saw, when Mr. S. J. Davey produced some spirit-writing on a double-hinged slate, which Mr. A. Podmore had locked before pocketing the key :

"Throughout the séance Davey kept up a constant stream of chatter on matters more or less germane to the business in hand. Mr. A. Podmore, absorbed by the conjurer's patter, fixed his eyes on Davey's face, and the latter took advantage of the opportunity to remove the locked slate under cover of a duster from under my brother's nose to the far end of the room, and there exchange it for a similar slate, with a previously prepared message, which was then placed by means of the same manœuvre with the duster in the position originally occupied by the first slate. Then, and only then, the stream of talk slackened, and Mr. A. Podmore's attention became concentrated upon the slate, from which the sound of spirit writing was now heard to proceed. To me the most surprising thing in the whole episode was Mr. A. Podmore's incredulity, when told that his attention had been diverted from the slate for an appreciable period " (*loc. cit.*, vol. ii., p. 218).

APPENDIX E

MR. MASKELYNE, MR. FAY, AND THE DAVENPORT
BROTHERS

In the June number of the *Strand Magazine*, 1910, Sir Hiram Maxim described some performances seen by him in America in early life, the essence of which consisted in the success with which the performer, a Mr. Fay, liberated himself in an apparently inexplicable way. For he was scientifically bound with a rope, the ends of which were knotted and sealed. It should, however, be remarked that the performer was concealed in a closed cabinet. Sir H. Maxim asserted that nothing he had seen Mr. Maskelyne perform could be compared for wonderfulness to the phenomena produced by Mr. Fay. To this Mr. Maskelyne replied in the August number, asserting that he had in earlier life produced phenomena by trickery quite as wonderful; but that these tricks required suppleness and training, and besides were getting stale after being performed for ten years, so that he had given up doing them since 1875, a date before Sir H. Maxim came to England. As a description of the type of trick he performed, Mr. Maskelyne gave a cutting from the *Birmingham Gazette*, June 24, 1865, which certainly justifies Mr. Maskelyne in contending that his tricks were quite as wonderful as those described by Sir H. Maxim, and runs as follows :

"THE DAVENPORTS OUTDONE.—On Monday evening an opportunity was offered of witnessing, in Jessops' Gardens, the tricks—for so they are described—as performed by Messrs. Maskelyne and Cooke. A plain and simply constructed cabinet was placed upon a platform, in which the performers were securely tied by two gentlemen from the audience. Immediately upon the doors of the cabinet being closed bells began to ring, tambourines were played, and musical instruments pitched through the aperture. In less than a minute after the doors were closed, they were thrown open again from the inside, and the operators were found to be as firmly and securely tied as in the first instance. The musical instruments were replaced in the cabinet, the doors again closed, and in a few seconds the bells rang more violently than ever, the tambourine appeared to be

more eccentric in its movements, and naked hands were thrust through the aperture. The doors were again thrown open as before, and the two performers were found sitting calmly at either end of the cabinet, bound hands and feet. A gentleman from the audience then ascended the platform, was blind-folded, placed upon a seat in the cabinet, and his hands firmly tied to the knees of each of the operators. As soon as the doors were closed, the bells, tambourine and trumpet commenced their discordant discourse, and came forth from the cabinet aperture as if released from a temporary Bedlam.

"The doors again voluntarily opened, and the blind-folded gentleman was seen to be seated as when he first entered the cabinet, only that the tambourine was upon his head instead of being upon his knee.

"The succeeding trick, however, appeared to be far more marvellous than any which preceded it. Messrs. Maskelyne and Cooke remained bound as before; the cords were sealed, and flour placed in their hands. In this condition they were again locked in the cabinet, two cornets being placed in the centre seat. Immediately upon the doors being closed a duet was commenced upon the cornets, "Home, Sweet Home" being the air selected for the purpose. It was well played, and would have called forth plaudits under ordinary circumstances, but in this case the applause was immense. Upon the last strain of the duet dying away, the doors were flung open, the cornets remained passive upon the seat, where they had been originally placed, and the operators sat as calmly and collectedly as if nothing had occurred.

"The ropes were inspected, and it was announced that the seals had not been broken, nor had any of the flour been spilled. The doors were again closed, and in about four minutes the young men emerged from the cabinet, perfectly unfettered, with the flour still in their hands!

"But the most astonishing part of the programme had yet to be accomplished. Mr. Maskelyne announced that he would be locked in a box three feet long by two feet wide and eighteen inches in depth, that the box should be corded according to the fancy of any one present, and still he would escape.

"An ordinary-looking deal box of the dimensions stated, with a few holes drilled in at either end, was placed in the cabinet, and in this box Mr. Maskelyne voluntarily immured himself. The box was locked, and the key given to a gentleman called from the audience, who corded up the box, an operation which occupied fully six minutes. This having been done to his satisfaction, bells were placed upon the box and the doors of the cabinet were closed, but the click of the bolt had scarcely died away ere the bells began to be tremulous, and gradually increased to a clatter, till at length they were pitched through the aperture on to the platform, and in less than ten minutes from the closing of the doors they were again thrown open, and Mr. Maskelyne was seen coolly seated in the box, and smilingly bowing his acknowledgments of the applause with which he was greeted. This is a trick which the Davenports never attempted, and (as Barnum somewhere has it), 'It must be seen to be believed.' Messrs. Maskelyne and Cooke were then bound by Mr. E. Lawrence and Mr. Dallow—the first-named being, we believe, one of the gentlemen whose knot-tying somewhat perplexed the Brothers Davenport during their visit here—an operation which lasted nearly twenty minutes, but the exhibitors managed to free themselves from their bonds in about fifteen minutes. Mr. Lawrence then explained to the audience that he had seen the Brothers Davenport tied, and had indeed assisted in that operation, but he would venture to assert that those worthies were not tied nearly so securely as their rivals had been. The performance throughout was loudly applauded and gave the greatest satisfaction."

APPENDIX F

COLLEY V. MASKELYNE [*April* 1907]

THOMAS COLLEY was Rector of Stockton, Warwickshire, at the time of the trial. As a youth he went to Magdalen College, Oxford, but never took a degree owing to want of means. Subsequently he became an M.A. of Tennessee. He was ordained in 1869 and became a priest in 1871. It was in 1874 that he became a great friend of

an American medium, named Monck. Soon after this, he sailed as chaplain in H.M.S. *Malabar*, and was in India in 1876, when Monck was sentenced to three months' imprisonment as a rogue and vagabond. On his return, he resumed his intimacy with Monck in the year 1877, and in February 1878 took place the séance, in the course of which Mr. Colley saw phenomena that Maskelyne professed subsequently to be able to imitate. He was nominated Archdeacon of Pietermaritzburg by Bishop Colenso in 1879, and though Colenso died in 1883, he did not leave Natal till 1888, when he ceased to be Archdeacon. He had always taken an interest in psychical subjects, and it occurred to him to go to the Church Congress at Weymouth in 1905 and invite criticism as to some of the incidents he had seen in Monck's rooms at Bloomsbury years before. No notice was taken of his suggestion, so he delivered his lecture during the week of the Church Congress and proceeded to have it printed by the thousand and to distribute it as "A Lecture by the Ven. Archdeacon Colley, given at Weymouth during the week of the Church Congress."

The title of the pamphlet was "Phenomena, Bewildering, Psychological." Its publication led to correspondence in the *Daily Telegraph*, which included a letter from Mr. Maskelyne on April 17th, 1906. Archdeacon Colley replied in a private letter enclosing a challenge offering to pay £1000 for a replica at Stockton Rectory of Monck's performance. On April 23rd, 1906, Maskelyne replied, saying that he was willing any time to give a replica at St. George's Hall, but that at Stockton Rectory it was too much trouble. Then, on May 29th, Colley wrote as follows: "£1000 Challenge, by Archdeacon Colley (Dio. Natal), Rector of Stockton, Warwickshire, for Mr. Maskelyne to do in any way, anywhere, at any time, as a conjurer, what the St. George's Hall illusionist declares Dr. Monck did by trickery."

On October 1st, 1906, Maskelyne wrote, saying that on the following Monday he should produce "the illusory effect which you have challenged me to produce, and I shall claim the reward of £1000." Colley went to the performance on October 9th, and denied that Maskelyne had given a replica of Monck's performance. He also resented the statements contained in a pamphlet called "The History of a Thousand Pounds Challenge," which Maskelyne distributed to the audience. In this it was asserted that the Rev. Thomas Colley was not an

Archdeacon, and had obtained a nomination for that position under Bishop Colenso by false pretences. This statement formed the basis of the alleged libel, and Maskelyne, for his part, counterclaimed £1000 as the winner of the challenge.

In the course of the trial, it came out that Monck got his title of "Dr." from Philadelphia, that he was the son of a butcher and had for a time been a Baptist minister. But "Spiritualistic Manifestations" broke out when he was preaching, and the congregation burnt his church for him. Subsequently he practised as a medium, and gave demonstrations at two guineas a time. His repertoire included the usual business with a musical box, spirit hands and other familiar physical phenomena. At a séance in Huddersfield a Mr. H. B. Lodge, an amateur conjurer, was present, who at the conclusion charged Monck with using certain apparatus, and promised him £50 if the musical box and other apparatus was not found upon him. The other credulous sitters begged Monck to submit to be searched, but he rushed at Mr. Lodge, attempted to strike him in the face and then bolted upstairs to his bedroom, where he locked the door and escaped with the aid of sheets from the window. When the door was opened, "the whole bag of tricks" was discovered in the room. For, as Mr. Maskelyne wrote in "The History of a Thousand Pound Challenge," "an examination of Monck's luggage revealed the fact that two large boxes and a full-sized travelling bath were filled with tricky apparatus, including spirit hands, spirit masks, a large quantity of gauzy material, a spirit bird, apparatus for floating tambourines, bells, spirit names, spirit lamps, and a number of most incriminating documents. Mr. Lodge took possession of these articles with the intention of giving public exposures of Spiritualism. The police, however, took the matter out of his hands, and prosecuted Monck. The trial lasted three days, and Monck was sentenced to three months' imprisonment, the maximum penalty.

"What influenced the magistrates in inflicting so severe a punishment were the incriminating documents, which included disgustingly immoral letters from both married and single women, with whom Monck had intrigues under the cloak of Spiritualism and the convenience of dark séances. In this respect Monck was but a fair specimen of professional

mediums, as a body, both men and women. I have had good reason to know that they are immoral and blasphemous in the extreme, yet spiritualistic cranks would have us believe that the wretches are specially endowed by the Almighty with the power to raise the spirits of the dead and create through their vile bodies living entities of our loved ones who have 'crossed the bar.' The idea is revolting."

In spite of these unfortunate facts about Monck, the Rev. Thomas Colley, in his writings, compared him with St. Paul, and was in no way suspicious about the phenomena he saw him perform. Thus, in the pamphlet above mentioned, Archdeacon Colley wrote :

"Once (February 18th, 1878) by daylight it was arranged as a most dangerous experiment that I should grasp the white attired Egyptian and try to keep him from getting back to invisibility through the body of the medium ('Samuel' being in control), and this is what happened, which ever since has made me, when I have read them, ponder over the words of the apostle St. Paul, 'whether in the body or out of the body, I cannot tell, God knoweth' (2 Cor. xii. 3). For I was, by an irresistible force, levitated, as it seemed, instantly some eighteen or twenty feet from my drawing-room door right up to where the medium stood, whom strangely and suddenly, wearing white muslin over his black coat, I found in my arms just as I held the 'Mahedi.' The materialised form had gone, and the psychic clothing that had evolved with him from the left side of my friend must also have gone the same way, with the speed of thought back to invisibility through the medium. But whence its substituted draper's stuff now on the body of our friend not wearing it an instant before?"

This quotation formed the subject of the following cross-examination (*The Times*, April 27th, 1907, p. 14) :

Mr. Gill. "You were dragged across the room?"

Arch. Colley. "Not dragged, it was a matter of instant impact. Instead of finding the 'Mahedi' in my arms, as he had been a moment before, I found the medium. I kept for a time a piece of the stuff substituted for the psychic clothing. It was not vulgar draper's stuff, but

most delicate silky muslin. I put it in my bag, took it to Learnington, and showed it to my wife; but it disappeared in some mysterious way. After the impact I collapsed, and the medium collapsed." . . . The witness then dealt with an incident, when, as he asserted, the "Mahedi," standing some two yards from the medium, chewed a baked apple, which the medium afterwards spat out from his own mouth into a paper bag. The witness produced the baked apple from the paper bag, in which he had kept it ever since (for thirty years), together with a grape skin and a chewed biscuit. He stated that this occurred in full daylight.

Dr. Alfred Wallace, F.R.S., D.C.L., LL.D., was called as a witness for the plaintiff, and said that as long ago as 1862 he began to investigate the phenomena of Spiritualism. In 1877 or 1878 he first met Dr. Monck. He never met Mr. Colley till to-day. He met Monck first on the first floor of a small house in Bloomsbury. He had read the plaintiff's pamphlet very carefully. He had himself seen, early in the afternoon, at the house at Bloomsbury, almost identically the same phenomenon as that described by the plaintiff in his pamphlet. (The witness then gave a detailed description of the emanation, conduct, and subsequent absorption of a human form, which, shaping itself out of a white cloud that came out of Monck's side, while he was in a state of trance, grew and gradually disappeared.) He had not known that any other person had seen this, and was very much struck when he read the description in the plaintiff's pamphlet. The witness proceeded: "I am absolutely certain that it could not have been produced by a trick, even if Mr. Maskelyne had been there with all his apparatus." He had been to Mr. Maskelyne's performance to see if he reproduced the phenomenon. The exhibition was "perfectly ludicrous." It was a lighted stage, instead of a small room and broad daylight; there was none of the white patch that came out of Monck's side and grew before his eyes, and at the end the young lady walked away instead of being gradually reabsorbed. It was "an absurd travesty," while the other was "a most marvellous sight to see. . . ."

Mr. Gill. "Have you ever heard of a medium that was not exposed in the end?"

Dr. Wallace. "On the contrary, I have heard of very few who were exposed. Monck was not caught in the

act of trickery. Monck was a guest on the occasion, and a demand was made that he should be searched, and he departed through the window."

APPENDIX G

(A) THE CASE OF DR. ASTLEY'S ASTRAL BODY

(From *The Times Weekly Edition*, January 1st, 1909)

A CASE FOR THE PSYCHICAL RESEARCH SOCIETY

THE following letter, published on Tuesday in *The Times*, has excited much interest.

"SIR, "The following may be considered worthy of record; the circumstances are literally accurate:—

"Last evening, between four and five, the housekeeper here came in and said, 'Come and see Dr. Astley' (the vicar of this parish). 'See Dr. Astley?' I said. 'Yes, Dr. Astley.'

"She took me into the study and asked me to look out of the window. I glanced over the lawn and saw nothing. 'You are looking in the wrong direction; look there.'

"And there I saw the presentment of a clergyman with a Cuddesdon collar gleaming white in the gathering darkness (about 4.40). I turned and looked behind me. 'It must be a reflection of myself,' I said. That, however, was impossible.

"I looked again more carefully. The vision represented a clergyman sitting at a table or desk with books before him. I noticed also a gold chain across his waistcoat (this is how Dr. Astley, the vicar here, wore it). I had three or four views, and then went outside and looked at the supposed wall against which the figure was sitting. It was really an inlet or alcove, and here, the housekeeper said, the vicar used to sit and read in the summer time.

"Dr. Astley is vicar of this parish, and left England for Biskra, Algeria, on December 10th. He and his wife were in the railway accident in a tunnel, reported no doubt by you. I had a letter from the chaplain at Algiers giving details. If you think the above worthy of publication, you may make any use you

like of it. I have communicated with no other paper."

" R. BROCK, *Acting Vicar*."

" EAST RUDHAM VICARAGE,

" KING'S LYNN, *December 27th.*"

It is a curious coincidence perhaps that the apparition should have been observed at this Christmas season, when ghost stories are particularly appropriate. Happily, this is no ghost story in the popular sense, for a telegram from Algiers on Tuesday established beyond doubt that Dr. Astley, the vicar of the parish, was alive, and yet the vision was witnessed again that evening both by Mr. Brock and the housekeeper at the vicarage.

Dr. Astley, who has been vicar of East Rudham since 1896, left England with Mrs. Astley on December 10th for Algiers. Mrs. Astley has not been in good health of late, and Dr. Astley accepted the chaplaincy of Biskra, Algeria, for three months, in the hope that the residence in a warmer climate would be of benefit to her. It was arranged that the Rev. R. Brock, vicar of Criggion, Montgomeryshire, in the diocese of Hereford, should come to East Rudham to act as *locum tenens*. Mr. Brock met Dr. Astley for the first time in London, December 9th, and spent half an hour with him before coming down to Norfolk. He heard nothing more of Dr. Astley until Saturday last, the 26th. On that day he received a letter from the Rev. Herbert C. Muriel, English chaplain at Algiers, announcing that Dr. Astley and his wife had sustained injuries, not of a very serious character apparently, in a railway accident in a tunnel near Mansourah, on the line between Algiers and Biskra. The accident occurred on Wednesday, the 16th, and the chaplain's letter was dated the 20th. The train from Algiers, while in the tunnel, came into collision with a disabled goods train, and, the brake and couplings having given way, the passenger train ran backwards down a steep incline and dashed over an embankment. Dr. and Mrs. Astley, who were in a restaurant car, were buried in the débris, and when they were rescued, it was found that Dr. Astley had received a bad cut on the head and several other contusions, while one of Mrs. Astley's legs was broken, and she had also sustained serious bruises about the face and body. They were taken to the French hospital at Bongie; but the chap-

lain stated that he was making arrangements for their removal to the English hospital at Algiers, where they would be tended by trained nurses later.

On Saturday, while Mr. Brock was seated in the dining-room at East Rudham Vicarage, the housekeeper summoned him, as he stated in his letter to *The Times*, to "come and see Dr. Astley" in the study. The housekeeper, according to her own story, had gone into the study, which adjoins the dining-room, in order to close the window-shutters. Now, the study is a small room with a door opening on to the lawn. The upper part of the door is of glass, and there is also a large window adjoining the door. On the left of the door outside is a glass conservatory at right angles with it, on the right is a blank wall (part of the dining-room), also at right angles with the study. Mrs. Hartley had no sooner approached the door window than she saw through the glass a figure which she declares was that of Dr. Astley.

The following statements of the three principal actors in this little drama were dictated to our representative on Wednesday afternoon at the Vicarage by the Rev. R. Brock, Mrs. Hartley, and the housemaid, Florence Breeze, respectively.

Statement by Mrs. Hartley

Mrs. Hannah Hartley said :

"I am seventy years of age. I came to the vicarage as housekeeper at the end of July last, or beginning of August. I had been living in Norwich before that time. On Saturday, December 26th, Mr. Brock read to me a letter which he had received from the chaplain at Algiers, describing the injuries which Dr. Astley and Mrs. Astley had sustained in a railway accident. About 4.30 p.m. on that day I went into the study to close the window-shutters. As I walked towards the outer door, the upper part of which is of glass, I saw Dr. Astley come round the corner of the house, as though he were going to enter the door, as he often did. He was holding a paper in his hand as though he wanted to give it to me. He was dressed in black, and I saw his white collar distinctly. He was without a hat. I opened the door and was just going to say, 'Fancy you being back,' when he went towards the dining-room

wall. There appeared to be a light about the figure, something like a halo. The night was quite dark. I continued to look through the glass, and the figure was there against the wall. He looked at me three or four times. Then I called the girl, Florrie, and, having obtained a candle, we came together into the study. I put the candle on a chair and looked through the window. The figure was there plainer than ever. I placed the girl beside me, and said: 'Tell me what you see, if you see anything.' She said: 'I see the Master, Mr. Astley.' Then I went for Mr. Brock. I put him in position at the window. He could not see anything at first; but on looking sideways towards the wall, said: 'I can see him quite plainly. He has a collar like mine, and a chain across his waistcoat.' Then I looked again and saw that Dr. Astley had changed his position, and was sitting at a desk. He still had the paper in his hand, but was not holding it out to me any longer. I closed the shutters; but as we were leaving the window Mr. Brock said, 'Let us look again, and see if he is still there.' I re-opened the shutters, and the figure was still there in a sitting position. This time he was holding the paper out again. I saw his hand and cuff clearly, and noticed two rings on the hand. Next we got a lantern and went into the garden. There was nothing on the wall, and nobody in the garden. This was about 4.45, so that I saw the doctor for about a quarter of an hour altogether. I returned to the study again and opened the shutter, but nothing was to be seen. I noticed nothing more until Tuesday, the 29th. At 5.15 p.m., when I went to close the shutters, I saw Dr. Astley's figure against the wall in the same position as before, standing with a paper in his hand. He held the paper out to me. I called the girl Florrie, but she could not come. I fetched Mr. Brock into the room and got a candle. When we returned to the window, the figure was still there, but it was disappearing. It was only there a few minutes. On this occasion there was a little light from the moon. About 7.15 the same evening I went into the study with Mr. Brock and the representative of *The Times*. I carried a candle, which I put on a chair. On opening the shutters I again saw the figure against the wall, still holding a paper. On looking again, I saw that Dr. Astley was not in black, but was wearing his cassock and surplice, with a stole over his shoulders. The stole was of white and gold. The

figure was there for quite ten minutes. It was there when I closed the shutter."

The Housemaid's Account

Florence Breeze, aged seventeen, housemaid, said :

" I came to the vicarage early in December, about a week before Mr. and Mrs. Astley left England. On December 26th, soon after 4.30, Mrs. Hartley called me into the study and told me to stand against the window. She had a candle which she placed on a chair close by. She asked me what I could see. I looked through the window and saw Dr. Astley. He was dressed in black and had a white paper in his hand. He was reading the paper. He was sitting at a table with books in front of him. He looked just as I have seen him in the study. I saw the figure for about five minutes. On December 29th Mrs. Hartley asked me to go to the study window again, but I was nervous and did not go."

Mr. Brock's Account

The Rev. Robert Brock said :

" I was seated in the dining-room of the Vicarage about 4.40 p.m. on December 26th when the housekeeper came and said : ' Come and see Dr. Astley.' I followed her into the study. She had a candle which she placed on a chair. She said, ' Now look.' I looked through the window across the lawn expecting to see somebody walking about there whom she had mistaken for Dr. Astley. I said, ' I can see nothing.' She said, ' You are looking at the wrong place. Look there.' She pointed towards the wall, which, with its buttress, juts out at right angles with the study wall. I said, ' Why, there is a clergyman there,' noticing the white collar almost shining out from the semi-darkness. I turned round and looked into the room to see if by any chance there was a reflection of myself. Not only was this impossible, but on looking again outside very carefully, I observed a clear outline of a face with a short beard (my face is clean shaven), a full view of a waistcoat with the coat thrown open, and across the waistcoat, from pocket to pocket, a heavy gold Albert. I said to the housekeeper, ' I see a gold chain right across the chest.' ' Oh,' she said, ' that is the way Dr. Astley always wears his chain.' I told her to take the candle

out of the room. She did so, and the room was in darkness. I looked out and still saw the figure sitting, as it seemed to me, behind a desk with some books in front of him. I saw no paper in his hand. He was not looking at me, and seemed to be engaged in thought, as a studious man might be. I went out of the house, taking a lantern with me, and inspected the wall against which I had seen the figure. There was nothing whatever to be seen except the dark wall. I came back to the study and looked out again and could just see the wall, but no figure. Previously I had not seen the wall through the window. The time during which I actually saw the figure was about five minutes. I saw nothing in the nature of a halo. I am firmly convinced that what I saw was as real to me at the time as if Dr. Astley had actually been there. On December 29th, at 5.15, the housekeeper summoned me to the study window again. I could just discern a very dim outline. It was then disappearing. I saw the collar dimly, but not the chain, and could not make out the face. There was a little moonlight, and it was not so dark as on the 26th. We went into the study later the same evening, and the housekeeper said she saw Dr. Astley in his surplice. I saw nothing."

As for previous visions on the part of the percipients, Mr. Brock and the housemaid have experienced none, but Mrs. Hartley has numerous stories of such things to relate.

On Wednesday a letter was received from the chaplain, written on December 26th, showing that on December 26th Dr. Astley was suffering from concussion of the brain, and was presumably unconscious. Mr. Brock, commenting on this, suggested to the representative of *The Times* that it might probably form an explanation of the mysterious apparition. "My own impression on Saturday," he said, "having had no previous experience of these things, was that Dr. Astley was dead. Now it would really appear that when we saw his figure outside the study window, he was in a state of unconsciousness or delirium, and that in some mysterious way he was able to project himself in living form to his home in England, where perhaps, at the time, he supposed himself to be. It remains to be seen whether this explanation will commend itself to scientists and students of the supernatural."

(From *The Times Weekly Edition*, January 8th, 1909)

We have received the following telegram from the Rev. H. C. Muriel, British chaplain at Algiers, dated December 31st :

" Dr. Astley is very amused. At the precise moment of the alleged astral appearance, allowing for the difference of Greenwich time, Dr. Astley was not in clerical garb, wearing a gold chain, at a book-laden desk, but was quietly resting in bed in the hospital, conversing with me about his lost luggage. Both patients are doing well; the concussion is disappearing, and rest is needed."

This message from Mr. Muriel, which refers, evidently, to the first alleged astral appearance on December 26th, disposes of the theory that the vicar of East Rudham, while unconscious, was able " to project himself in living form to his home in England." Dr. Astley was not unconscious at the time when his " double " appeared to the household at the vicarage, nor, apparently, were his thoughts concerned with the affairs of his parish. The mysterious occurrences at East Rudham therefore remain unexplained. The acting vicar, the housekeeper, and the housemaid are still convinced that they saw " something," which they believed to be the figure of Dr. Astley. Mr. Brock, indeed, has repeatedly " cross-questioned " himself—to use his own phrase—as to whether by any possibility he can have been deceived, and he has come to the " perfectly unquestionable conclusion " that he was not deceived. Mr. Brock's absolute positiveness about the matter would appear to render less convincing the theory, which is doubtless entertained pretty widely, that Mrs. Hartley, the visionary, unconsciously invented the scene outside the study window, and by the influence of her own mind caused the others to imagine that they saw it too. Mr. Brock, a middle-aged clergyman, who has travelled widely and has had long experience of life in the Colonies—both in Queensland and in South Africa—does not give one the impression that he is likely to be easily influenced by an old woman's fancies. Then there is the housemaid. She did not know what to expect when she was called into the study by the housekeeper. She was told to look through the window and say what she

saw—if she saw anything. Dr. Astley's name was not mentioned until she pronounced it herself.

This account of the case of Dr. Astley's astral body requires no comment from me, as all that need be said is contained in a letter from Mr. D. F. Shearer, published among the correspondence which interest in the case called forth.

"SIR,

"It is almost a pity to spoil the story of a Christmas ghost in the twentieth century; if there were only some small addition of clanking chains, sepulchral voice, hidden crime, or concealed will, one might hesitate to introduce the science of optics as a basis for criticism. Unimaginative scientific men will, however, point out that the glass panel of the door through which the ghostly book-shelves were seen is a mirror in which the material book-shelves are always reflected, the reflection becoming visible to the eye when the light outside is less intense than the light within the room. This phenomenon can be readily seen in the window of a railway carriage at night or when passing through a dark tunnel. The next optical point is the condition of the observer's eyes. At the age of the housekeeper, the power of accommodation has disappeared, and hence, if the image of the book-shelves is in focus, the door and the wall outside are out of focus; add to that a predisposition to see ghosts and a mental concentration on a particular person, and the observer's brain will believe that it perceives distinctly this individual, when in fact the eye sees only an indistinct and blurred object, which has accidentally some resemblance to a human being.

"That this is the true explanation is shown by the statements of the other observers; the clergyman, by profession a believer in spirits, with his mind also concentrated on the absent vicar, is also of an age when accommodation is defective. He too sees the ghost, but not so definitely. The journalist, younger, with more active accommodation, not professionally a believer in spirits, having his mind quite unpossessed by concern for the absent vicar, sees the reflection of the book-shelves, but not the ghost.

"The publication of this ghost story is really of

great value, because the solution shows how little mystery there is in these tales, and how easily one can be deceived by an optical delusion of whose nature one is ignorant. Such deceptions are well known to psychologists, and in any modern work prints will be found in which the figures will not keep still, but are continually changing in number and appearance. If you have space, you might add one of these 'ghostly' pictures; it would be an interesting study for those of your readers who are ghost lovers on New Year's Eve."

(B) THE CASE OF MR. AND MRS. AMES, ILLUSTRATING
THE VALUE OF THE ALLEGED "CROSSING OF
LETTERS," AS EVIDENCE FOR TELEPATHY

The following case may be taken as typical of "psychic" experiences, quoted in support of telepathy, in which letters are said to have crossed. The supposed facts are contained in a letter to the *Daily News*, of September 11th, 1911, from Mr. and Mrs. Hugo Ames.

"SIR,

"Our attention has been directed to the challenge and offer of £1000 to prove telepathy. My husband, Mr. Hugo Ames, and I have sent to Mr. Matthew Jarvis, solicitor, who advertised, our evidence, which is as follows: 'In August—to be exact, on August 21st, 1908—I was in London in my own flat one afternoon, occupied in writing for one of Harmsworth's papers, when suddenly my pen stopped, and wrote "consciousness" three times. Then, stopping, I realised that I was being asked, urged, to write or discover something on consciousness. Almost immediately I felt I was in telepathic communication with Mr. Hugo Ames (I was then Mrs. Northesk Wilson). He was staying at Lysways Hall, in Staffordshire, and I was aware that he was writing his new work, "Man, the God." The telepathic demand was so exactly as if I had heard him say he was "stuck" on this point. I got up and went to my book-shelves, and took down a book containing an article by Annie Besant on Bose's description of consciousness in the vegetable and animal kingdom. I then put my own papers aside and began to write on my own experiences of consciousness, supple-

mented by Bose's theory. I caught the post, and sent Mr. Ames this paper, with a letter telling him why. The next morning, August 22nd, I received a telegram: "Wonderful! Letters crossed. Discovered Bose's theory yesterday."

"This telegram, dated from Lysways, came a little while before the post which brought me a letter asking me to help him on this subject! Every one who knows us notices the wonderful affinity of thought, and we have proved that telepathy is of daily occurrence between us, and this complete harmony of feeling seems to run through the whole thread of our lives, making life very much worth living, as it seems to point to a unity of understanding, and comes back in some marvellous way to vibratory sympathy. So much so, that it means more than telepathy. For if my husband writes music, instantly I find words to put to the melody, and if we exchange the position at the piano the result is the same. Sometimes a certain humour attaches itself to this telepathy, when at Christmas we go out separately, and buy the same presents for the same members of the family!"

" FLORA AMES,

" H. L. AMES.

"(The original telegram has been sent to Mr. Jarvis.)"

In this letter Mr. and Mrs. Ames make the following definite assertions: (1) That on the afternoon of August 21st, 1908, Mrs. Ames' pen wrote, more or less automatically, the word "consciousness" three times. (2) That, as the result of this, Mrs. Ames (who was not at that time married to Mr. Ames, and was named Mrs. N. Wilson) felt impelled to write a letter to Mr. Ames on the subject of consciousness and Bose's theory in particular. (3) That Mr. Ames, on receipt of this letter by the morning post of August 22nd, sent a telegram: "Wonderful! Letters crossed. Discovered Bose's theory yesterday." (4) That this telegram was received by Mrs. Ames on the morning of August 22nd, and that it was followed a little while after by a letter written by Mr. Ames the previous day. (5) That Mr. Ames' letter was posted on August 21st—for this is implied in the statement that the letters crossed—before the receipt of Mrs. Ames' letter.

After such a clear statement it will probably come as a surprise to the reader to learn that the evidence sent to Mr. Jarvis was very different in several particulars from the assertions made in their letter. But such is indeed the case! And the telegram, which happily has been kept, so far from corroborating the details, actually discredits the story! For the following are the differences:

1. Mrs. Ames' (at that time Mrs. N. Wilson) pen did not write "consciousness" three times. In the evidence submitted to Mr. Jarvis, it is said to have written: "Consciousness—Theory of Consciousness—Plants. Can you help me?"

2. The telegram is *not* "dated from Lysways." It was handed in at Longdon, Staffordshire, at 11.15 a.m., and received in London (Sloane Square) at 12.6 p.m. (noon): so it was not received till the *afternoon* of August 22nd.

3. The words "Letters crossed" are *not* in the original telegram. The actual words are: "*Wonderful discovered Bose's theory yesterday began letter to you on this as yours arriving Hugh.*" From the sense of the telegram the word "yesterday" obviously belongs to the words which precede it; consequently it is clear that no crossing of letters took place, and that Mr. Ames had not posted any letter to Mrs. Ames at the time of sending off the telegram, which was probably an hour or two later than the hour at which he received her letter. Further, if the two letters had crossed, the one from Mr. Ames would have come by the morning post, and would have preceded the telegram; whereas we are told that Mr. Ames' telegram came "a little while" before the post that brought his letter. How long a period of time "a little while" is meant to cover is not clear, though it is clear that the letter from Mr. Ames cannot have come till the afternoon or evening of August 22nd, and possibly not till the morning of August 23rd.

Thus, in this case we have at least three points in which the narrators have shown their incapacity for recording facts accurately; and though the first two points are not of vital importance to the story, the third is, and the statement that "letters crossed" is an actual invention.

Curiously enough, their own letter itself proves that Mr. and Mrs. Ames do not possess telepathic powers.

For, if they did, they surely would not be foolish enough to "buy the same presents for the same members of the family"! If this is a fact, all it suggests is that they have similar tastes and intellectual sympathies.

The reader must not think that Mr. and Mrs. Ames were deliberately trying to deceive the public when they wrote their letter. Their *bona fides* is clear. And so is the moral of this story—namely, the worthlessness of accounts of "telepathic" experiences, uncorroborated by documentary evidence.

APPENDIX H

THE DIFFICULTIES OF TELEPATHY

THE argument in support of telepathy on which Podmore lays stress, and on which Sir Oliver Lodge mainly relies in his reply to Professor Newcomb (*Nineteenth Century*, February 1909, p. 206), is that the results of the census or inquiry made by the S.P.R. in 1887-89 into the occurrence of hallucinations and the frequency of coincidental correspondence with the death of the person seen, prove that mere chance cannot be the explanation of this coincidence. The report is published in the tenth volume of the *Proceedings of the S.P.R.*, and a very clear account of the matter is given in Podmore's "Telepathic Hallucinations," p. 32. Briefly, the argument is as follows: During the decade 1881-1890 the annual death-rate was 19.15 per 1000. Therefore the probability that any person taken at random would die within any given twenty-four hours was 19.15 in 365,000 = about 1 in 19,000. Now, the S.P.R. found that there were 1684 among 17,000 apparently normal persons (9.9 per cent.) who remembered having experienced a sensory hallucination at some time in their lives. Of these cases there were 322 in which there was a recognised realistic apparition of the human figure (doubtful cases being ignored). Of these, again, sixty-two are reported to have coincided with a death. Then, after making "liberal allowance" for unconscious exaggeration and forgetfulness, the Committee came to the conclusion that there exists a coincidence between hallucination and death in one case out of forty-three cases of hallucination. But if there is no causal connection between the hallucination and the death, we should find only one coincidence in 19,000 cases.

This argument is certainly impressive, but loses considerable weight from the fact that the report is based on only 17,000 persons out of the whole community, and that a "liberal allowance" for unconscious exaggeration and forgetfulness is, to say the least, an unsatisfactory link in the chain. Further, it is to be noted that this argument, if its cogency be admitted, is not in favour of telepathy in particular, but only of some causal connection between hallucinations and deaths. And in many such cases it is clear that the percipient was aware of the illness of the person seen, so that a train of thought might easily have been set up, which would naturally determine the character of an hallucination, and possibly be an exciting cause of its occurrence about the hour of death. Such an explanation is "on all fours" with the suggestion Podmore himself throws out to explain the repeated occurrence of sensory hallucinations in certain localities (haunted houses); for he writes :

" We have, then, the following sequence of events. First, loud and mysterious sounds, probably due to normal causes. Second, a state of uneasiness and apprehension amounting in some cases to actual panic in the occupants. Third, the appearance of manifold ghostly figures, sometimes of a terrifying character. The sequence is repeated again and again in the best authenticated narratives, those in which the incidents are recorded near the date of their happening, and it seems permissible to suggest that the sequence is a causal one—that real sounds, exaggerated and misinterpreted, induced in nervous persons a state of uneasy expectancy, and that this nervous state in its turn gave rise to hallucinations. We find a somewhat similar state of nervous expectancy with concomitant hallucinations at some spiritualistic séances." ("Telepathic Hallucinations," p. 123).

I must now point out what a real and important fallacy *unconscious exaggeration* introduces. For, as I have already stated in a note on p. 74, the late M. Vasschide, assistant director of the laboratory of pathological psychology at the École des Hautes Études in Paris, showed by researches, published in 1908, that 96 per cent. of the subjective hallucinations among his friends, said to be veridical, did not correspond to any objective reality whatever, and that the supposed veri-

dical coincidences in these cases were wholly a figment of the imagination. And he obtained these results from as many as 1374 hallucinatory experiences, studied first hand. Consequently, if we deduct 96 per cent. from the supposed veridical cases in the census of the S.P.R., we shall not have left more cases than can be accounted for by chance-coincidence.

But it may be asked, "Have we any justification for applying M. Vaschide's results to the S.P.R. census, seeing that the cases, before appearing therein, underwent a certain amount of sifting?" To any such question the answer is given by the article, already referred to, written by Mr. Taylor Innes in the *Nineteenth Century* (Vol. XXII., pp. 174-194, 1887), where he shows that "Phantasms of the Living," written the previous year by Messrs. Gurney, Myers, and Podmore, is characterised by "a systematic relaxation of all ordinary rules" of careful investigation in the matter of documentary evidence. Now, Gurney, Myers, and Podmore were three of the most active members of the S.P.R. at that time and the census was largely based on cases appearing in their book. For "Phantasms of the Living" contained 702 numbered and selected cases "out of over 2000 depositions which seemed *prima facie* to deserve attention." Of these 702 cases, 315 came to the authors second-hand, and so were put in a supplement; but upwards of 350 are cases in which the main account came directly from the percipient to the editors. These 350 cases, after investigation by the editors, were passed as coming up to their standard, and in most of them they showed conclusively that the event said to have been perceived really took place; but they gave practically no evidence that the percipients at a distance felt or perceived at the time of the event what they afterwards said they did. Indeed, their laxity in printing certain stories without documentary evidence is particularly striking in some twenty or more cases in which we are told that an epistolary document was issued at the time, or that letters are said to have crossed, the production of which, with an official date and postmark, would have proved conclusively the truth of the percipient's story of a vision. And there are at least a hundred cases where the narrative implies that documentary corroboration could reasonably be demanded. Yet of the 702 cases, including 350 first-hand narratives, there is *not one* case "in which the indefatigable editors

have 'seen or ascertained' a letter or document issued at the time by the narrator, so as to prove his story to be true." Mr. Innes therefore says, in his conclusions: "I am not aware of anything which can account for this, unless it be that this whole class of stories is without real foundation."

Again, a point which the Committee seem to have ignored is the average age of the perceived person at the time of death. This, to my mind, is an important factor; as, if the average age was over sixty, the expectancy of life would be lessened. For if it is true that the chance of any person taken at random dying on a particular day is one in 19,000, then the chance that, of persons over sixty, a particular one taken at random will die on a particular day is greater than one in 19,000.

Another point which Podmore makes clear in a tabulated summary of the census report is that out of 1112 cases of visual hallucinations there were 830 of realistic human apparitions and only 25 of animals. Now, in the evidence for telepathy, I have come across instances of the apparition of a beloved dog at the moment of death, as in the case quoted on p. 71, so that if the mind of a favourite dog can affect at a distance the mind of its master, we should expect numerous examples of this class of case. But, judging from the census report, it is at least thirty times rarer than that of human apparitions. If, then, chance coincidence is admitted to be a satisfactory explanation of this class of case, where there is no reason to believe that knowledge of a dog's illness had started a worrying train of thought, I cannot see why the same explanation should not apply with even greater force to cases of human apparitions. For the illness of a friend or relative would be more likely than that of a dog to start an anxious train of thought resulting in an hallucination; and so the discrepancy in the two sets of figures would be naturally explained. As regards the cases where the apparition of a dog coincided with its death, I am afraid that it will never be possible to form even an approximate estimate of what the numbers should be on a basis of pure chance. For, on the one hand, those cases in which there was a correspondence between the apparition and hour of death would be just those which would be remembered, and, on the other hand, the death-rate of dogs can hardly be calculated. However, owing to numerous causes, of which their shorter life and liability

to accident are the chief, one would be justified in assuming, I think, that the death-rate among dogs must be greater than among human beings, and so in favour of chance as an explanation of coincidence between apparition and death in those cases where the illness of a dog had not started a subconscious train of anxious thought.

So much for the chief argument in support of telepathy. I will now consider some of the other difficulties with which the subject abounds. In experiments on thought-transference—a name sometimes given to the experimental transference of an idea or a mental picture from an agent to a percipient at close quarters, in contradistinction to “telepathy,” which is then used for the subconscious transmission, through practically any distance, of ideas, generally bound up with personality—the intervention of a floor or wall, or sometimes even of a screen, between the agent and percipient (see an account of experiments with cards described in Sir Oliver Lodge’s “Survival of Man,” p. 58) puts an end to a successful result; and it may not unfairly be said, in the words of Professor Newcomb, *à propos* of experiments in thought-transference: “Possibly you may succeed, but the more pains you take to avoid all sources of error, the less likely success will be” (*Nineteenth Century*, January 1909, p. 132). On the other hand, Podmore, whom I take as the most critical writer I know, with a tendency to believe in telepathy, makes it perfectly plain in his numerous writings that the evidence for spontaneous telepathy points to its occurring quite readily at a distance without any conscious effort on the part of agent or percipient. This applies mainly to cases of sensory hallucinations, but is also true of some of the apparently successful experiments of Miss Ramsden and Miss Miles, who exchanged postcards every day, recording what they had been thinking of or had perceived (*Journal S.P.R.*, June 1908, and *Proc. S.P.R.*, Vol. XXI., p. 60). Consequently it looks as if the same telepathic explanation cannot logically be given both to experimental thought-transference, where the agent concentrates his mind on the mental picture to be transferred, and to telepathic hallucinations, where the processes are carried out quite subconsciously.

Again, in telepathic hallucinations there is no uniformity which would imply the existence of a faculty operating by definite laws. Thus, if we examine the

seven examples of telepathic hallucinations which Podmore has selected as among the best verified instances of the kind for illustrating the argument in the first chapter of his book, "Telepathic Hallucinations; The New View of Ghosts," we find the following remarkable diversity:

In No. 1 the percipient (a lady) sees, about 8.30 p.m., the figure of a friend (a man) wearing a cap, which she had never seen him wear before, at a time when she had no reason to think he was ill, and when he was lying in bed unconscious a long distance off, owing to the rather sudden onset of an illness from which he did not die for another six days.

In No. 2 a young lady saw the figure of her fiancé about 12.30 noon, which corresponded more or less with the hour of his death at a time when she had no reason to think he was seriously ill, although his sister had written three days before to say he had a cold, and could not keep an engagement made for that evening.

In No. 3 a child of twelve saw, about 9.30 a.m., the figure of a page-boy who had died two hours before. The figure was dressed in the working clothes worn by the page-boy when he was in the service of the child's mother.

In No. 4 the figure of a young man appeared about 2.30 a.m., to the mother of his fiancée, three hours after his death from a wound received during his participation in an insurrectionary movement in Rio de Janeiro. The figure was dressed in the clothes which the young man usually wore at home, and not in the clothes he was wearing at the time of his death.

In No. 5 a clergyman saw, about 10.30 p.m., the figure of an old friend, whom he had not seen for ten or eleven years, several days after his death.

In No. 6 three ladies saw the figure of an unknown man about 9.45 p.m. in a room lighted only by the street lamp outside. Two of them first caught sight of the figure reflected in a mirror.

In No. 7 there is an account of a house haunted by a figure which, apparently, was that of a child eight years old, who had died in the house thirty years before.

This diversity suggests that there may be more than one explanation for cases like these, taken as a whole, as, for example, in No. 6, the suggestion that there was

a real man present might be a possible explanation. Further, the combination of probable and improbable details, as, for example, in No. 1, the cap worn by the figure, suggests that the same processes are at work which so often produce those absurd combinations characteristic of dreams; and dreams are admittedly the product of unconscious cerebral processes, often started by a train of thought before going to sleep. In this case, if telepathy were given as an explanation, we should have to assume that either the unconscious man was subconsciously thinking of himself wearing the cap in question, or that some friend in the neighbourhood was doing so. But in all these cases there is considerable uncertainty as to whether the percipients felt at the time of the event what they afterwards said they did, for Mr. Innes's criticism of "Phantasms of the Living" applies here too.

Vagueness of detail in the evidence for telepathy often leaves so much room for variety of interpretation according to bias, that, as in the case of hallucinations said to be veridical, unconscious exaggeration and forgetfulness have always to be taken into account. In the case of experiments with Mrs. Piper, bias has played a very great part in the interpretation of the records, and one of the subtlest and perhaps most important sources of fallacy is the unreliability of the memory. In so many cases the value of the evidence depends entirely on the statement, made with absolute assurance by one or more persons, that they are certain that never in the course of their lives have they been aware of the facts seen in a vision or mentioned in a thought-transference experiment. Thus one of the most recent examples of a case of supposed telepathy of this kind is the experience of two ladies, published by them under the title of "An Adventure" (Macmillan & Co., 1911), recording a vision or waking hallucination in which they noted details which they afterwards found were historically accurate; details, the knowledge of which they state had never at any time been possessed by their conscious minds. As the incident is so well known, I think it forms an interesting case to discuss here, although in many respects it possesses unique features, and was not reported with sufficient scientific accuracy to enable one to be certain of the facts underlying the experience, so that the attempt to give a serious explanation to a single experience of this kind is very unsatisfactory.

In this adventure the ladies, on a hot August afternoon at Versailles in 1901 (the day of the month is not given), lost their way after lunch in the grounds close to the Petit Trianon, and wandered among woods and along paths which they afterwards found had no existence, but which historical research gave them some reasons for supposing had existed in the time of Louis XVI. Not only this, for they talked to two gardeners; and a young man, heavily cloaked, who came running after them, appearing and disappearing from nowhere, directed them in the direction of the Petit Trianon. Then they both saw a gentleman, whose face wore an odious expression and was marked with smallpox, sitting on the steps of a kiosk; and while one of them, towards the end of the adventure, saw a lady sketching close to the terrace of the Petit Trianon, the other, at the beginning, saw a woman handing a jug to a girl at the door of a cottage. They noted, more or less clearly, the dresses worn by all these persons, and found in subsequent years by historical inquiry that they seemed to accord with the fashions of the dresses which were worn respectively by the gardeners, villagers, and courtiers at the Petit Trianon, and by Marie Antoinette herself, about the year 1790. Finally, on ascending the terrace of the Petit Trianon and looking in at one of the boarded windows, a lackey ran out of a building close by (his appearance and dress are not described), slamming the door behind him, and conducted them round to the main entrance, where they joined a French wedding-party being shown round the place, and afterwards drove back to their hotel at Versailles, where they had tea.

Now, I think it extremely probable that the facts recorded by them are to some extent true, being based on real misinterpreted perceptions; but that—as in day dreams, the hypnagogic state of sleep, and other hallucinatory states—there was probably also an intrusion of wholly “representative” elements, so that I feel justified in remaining agnostic both as to the extent of their previous ignorance of the history of the Petit Trianon and also about the accuracy of the recorded details and their exact correspondence with what subsequent researches showed may have been historical facts. For psychologists, who have made a special study of dreams, are clear that it is impossible to be certain that the memory of a dream is accurate, and in this particular

experience there are two peculiarly unsatisfactory features. (1) They were so unaware that anything out of the ordinary had taken place, that they did not discuss any of these experiences till one day, a week afterwards, when they were writing letters describing their visit to Versailles, and, in trying to recall the expedition, they agreed that the place was haunted, and that a feeling of depression stole over them at a particular spot on their walk from the Palace to the Petit Trianon. (2) It was not till three months later that they wrote down their respective accounts of the experience which are published in their book.

Their own explanatory theory is that they entered a psychic atmosphere created around the place by the brain of Marie Antoinette when she was spending the long day of August 10th, 1792, with the Legislative Assembly at the Tuileries and trying to divert her mind by thinking about the Trianon. But this is hypothesis pure and simple; for, if they were trespassers on some one else's memory, it is only bias which makes them think it was Marie Antoinette's; and it is noteworthy that, while proclaiming a bias against the occult, they mention, almost with pride, that one of them has a "deliberately undeveloped power of second-sight" and that the other comes of a family possessing powers of "premonition accompanied by vision." Such statements are the reverse of impressive; for here they assume, what has still to be proved, that such gifts are a practical reality, and they seem to consider that the same power can enable the possessor to see the past or future! The description of their experiences is not so clear—thus, they make no mention of the legs of the young man who came running after them, but only mention the buckles on his shoes; and similarly, they are vague as to whether it was a rock or what it was from behind which he appeared—as to exclude the possibility that many of the details took definite shape in their minds afterwards; and altogether it is difficult to be certain how far forgotten memories before the experience, or in the interval before it was recorded, can be said not to have influenced the account. On the other hand, I think we may say for certain that these ladies, on a hot afternoon, after a tiring round of sight-seeing and lunch, had a waking hallucination, closely resembling the hypnagogic state preceding sleep, which is characterised by dissociation of consciousness

and diminution of apperception, and in which illusions of memory (paramnesia) are particularly liable to occur (see "The World of Dreams," by Havelock Ellis, pp. 221-260). Such a state is often also attended by depression or by a feeling of oppression, as any one inclined to be bilious will know who has gone to sleep after dinner.

Examples of retrocognition or pseudo-memories are a particularly interesting study, and there can be no doubt that the explanation of them is given by a study of the hypnagogic state which is a transition between sleeping and waking, and which sometimes occurs in the middle of active mental life as the result of excitement or exhaustion. In this state there may even be loss of the consciousness of personality. Thus Jastrow records the case ("The Subconscious," p. 137) of a lady student absorbed in work, who, hearing outside the door the shuffling of rubber-heels such as she wore, said: "There goes—," naming herself.

Another most important possibility must always be borne in mind in telepathic experiments, namely, that sensory impressions may affect consciousness without being consciously perceived—in other words, a subconscious impression may subsequently affect consciousness.

Thus Jastrow and Nuttall, about twenty-five years ago, did some most valuable experiments with an electro-magnet. One observer (the percipient) sat on a chair in a room on the third floor of a tall building with his head between the two poles of the magnet, which was supported on two adjoining tables. The other observer (the agent) was in a room on the ground floor, turning by hand a gramme-dynamo machine, and so generating the current which was conducted to the electro-magnet by heavy insulated wires running out of the windows along the wall of the building and in through a window on the third floor. The agent communicated with the percipient by a system of electric signals; otherwise they were *completely isolated* from one another, with over thirty feet and two heavy floors between them. The experiment consisted in the percipient trying to say when the coil was magnetised. They made eight hundred observations during a week, and on one of the last days, a quiet Sunday when the trams had stopped running, they came to the conclusion that at times they were able to detect the noise result-

ing from the turning of the dynamo, and that it was conducted along the wires. There was also another fallacy. For they found that on magnetising and demagnetising the magnet, a faint but yet audible molecular crepitation occurred, the sound produced being a very dull, rather sudden, click. The click accompanying demagnetisation was much more distinct than that accompanying magnetisation.

During the first eight hundred experiments, the proportion of correct guesses indicated that there was some factor at work other than that of pure chance, and if they had not discovered the two fallacies, above-mentioned, their experiments would have been supposed to prove the existence of a magnetic sense for the detection of magnetic waves, the "oddylic fluid" of the old mesmerists. However, they were able to exclude these two fallacies, and then made 1,950 more observations on themselves and various students; whereupon the proportion of correct guesses showed that there was no other factor present than that of pure chance.

Thus auditory indications of which the percipient was utterly unconscious were used as a basis for forming the judgment during their first series of 800 experiments. (See *Proc. American S.P.R.*, Vol. I., p. 116, July 1886.)

One could not have a better example both of the importance of subconscious impressions received through the senses, and of the difficulty of excluding fallacies in telepathic experiments, which, instead of being done in hundreds, are usually only done by tens or even by units.

In view of the above facts and considerations, I believe that many experiences somewhat analogous to that recorded in "An Adventure," but often too transitory and trivial to record, like the recognition of a strange place, are most easily explained by some latent and forgotten memory, or else by an undetected interval between the first subconscious impression made on the senses and the conscious recognition of one's surroundings. Several times in my own experience I have detected the emergence of facts which my first impulse prompted me to feel certain had never been known to me but which I afterwards have found were really latent in my memory. A good illustration of this tendency is afforded by the following incident, which occurred to a highly observant and critical engineer I know, who had

an argument with a friend about the solution of a geometrical problem which he was certain he had never seen or heard of before. He was prepared to swear that the problem was insoluble, and tried to prove that such was the case. Judge, then, of his surprise when there was handed to him a solution of it in his own handwriting, some twenty years old!

This same friend may also be quoted as proving the difficulty of getting any satisfactory evidence for telepathy. For, in his restless desire to get at something really convincing—having during the last ten years carried out many experiments and taken a great interest in the subject—he offered only a few months ago £1000 to three of the leading English authorities on telepathy for satisfactory proof of *one recent case*, with the following result, which I give in his own words:

“The first replied at once, expressing his surprise at my imagining ‘that incontrovertible evidence could be obtained at all in an inductive problem’! The second at first very kindly expressed his willingness to help, and appeared very keen to meet me and talk the matter over; but, after seeing No. 1, he wrote, ‘Whilst anxious to help you, I could not undertake to prove the results of a long and difficult investigation to order or for a pecuniary offer,’ and the third replied, ‘You may offer £1,000,000 with perfect safety. No sane person will back any mortal to do telepathy to order’!”

“If any proofs existed, they should surely be forthcoming; but it is something to get from one of our leading scientists, who has often declared his belief in telepathy, the admission that it is an ‘inductive problem’!”

Lastly, the opinion of those experts who have studied the evidence for telepathy, and have finally, after much experience, come to an adverse conclusion, should have great weight—especially if coming from scientifically trained men; for such a conclusion has been arrived at in face of the natural tendency to believe in the occult. Two of the most noteworthy are the following: (a) Professor Simon Newcomb, the late distinguished astronomer and mathematician, was the first President of the American Branch of the S.P.R. in 1884, so that he took an interest in the subject for many years. Now, in the *Nineteenth Century*, January 1909, p. 139, he wrote:

" Nothing has been brought out by the researches of the psychical society and its able collaborators, except what we should expect to find in the ordinary course of nature." (b) Dr. J. Milne Bramwell, the English authority on the subject of hypnotism, took part many years ago with fellow-members of the S.P.R. in experiments on thought-transference. Here is the summary of his experience in 1909 :

" During the last twenty years, I have searched for evidence of telepathy and also taken part in the experiments of other observers ; the results, however, have been invariably negative." (" Hypnotism and Treatment by Suggestion," p. 118, Cassell & Co.)

In addition to these, I must mention the late Mr. Frank Podmore, secretary of the S.P.R. from 1888-1895, whose books during the past twenty years show immense knowledge and the most painstaking study of psychical subjects. His opinion, it is true, inclines to a belief in the existence of telepathy ; but this he only allows himself to express in the most guarded terms—twenty years after the founding of the S.P.R.—as follows :

" For my own part, I see no reason to doubt that if the existence of thought-transference should eventually be demonstrated—and I do not claim that the demonstration is or ought to be considered complete—the explanation will be found strictly within the region of natural law. . . . It must be admitted that the older evidence is far from demonstrative. Possibly, apart from two recent items—the experiments at Brighton conducted by Professor and Mrs. Sidgwick and the records of Mrs. Piper's trance-utterances—the question of the reality of such a faculty would hardly seem worth discussion."

(" Modern Spiritualism," Introduction, p. xviii.)

In conclusion, then, I may say that, while admitting the *a priori* possibility of telepathy and the superficial impressiveness of the evidence for it, I adopt the same attitude towards the evidence as Professor Newcomb, when he wrote *à propos* of spontaneous and coincidental hallucinations : " The seeming wonders—and they are plentiful—are at best of the same class as the wonder when a dozen drawers of the black grain of corn out of a million are presented to us." (This refers to a previous

paragraph in which the probability of coincidence is illustrated by the experiment of making every inhabitant of Great Britain draw one grain of corn out of a bag containing a million normal grains and a single black one.) "We are asked to admit an attraction between their hands and the black grain. The proof is conclusive enough, until we remember that this dozen is only a selection out of millions, the rest of whom have not drawn the black grain. The records do not tell us, and never can tell us, about the uncounted millions of people who have forgotten that they ever had a vision or any illusion; or who, having such, did not find it associated with any notable occurrence. Count them all in and nothing is left on which to base any theory of occultism" (*loc. cit.*, p. 139). This attitude, however, does not prevent me hoping that further experiments in telepathy will be carried out by researchers trained in experimental psychology, for there is great need of such to throw adequate light on the question, which till then we must "leave in a decent obscurity"—to quote Podmore's words about Eusapia ("The Newer Spiritualism," p. 143), which slightly altered might run: *In any case the matter is not to be decided by argument, but by experiment. Let renewed and again renewed attempts be made by properly trained scientists to procure telepathic effects under laboratory conditions, and, until success has been obtained, let us leave telepathy in a decent obscurity.*

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